Audit Report

OFFICE OF THE INSPECTOR GENERAL

DOD SEALIFT OPERATIONS

Report Number 92-135

September 9, 1992

Department of Defense

The following acronyms are used in this report.

CENTCOM . . . . . .U.S. Central Command
CORM. . . . . .Cargo Outturn Reconciliation Message
DOT . . . . . .Department of Transportation
FSS . . . . . .fast sealift ships
GAO. . . . . .General Accounting Office
GTN. . . . . .Global Transportation Network
JOPES. . . . . .Joint Operation Planning and Execution System
LOGMARS . . . . . .Logistics Application of Automated Marking and Reading Symbology
MSC . . . . . .Military Sealift Command
MTMC . . . . . .Military Traffic Management Command
PREPO. . . . . .preposition force
RORO . . . . . .roll-on, roll-off
RRF. . . . . .Ready Reserve Force
SPOD. . . . . .seaport of debarkation
SPOE. . . . . .seaport of embarkation
TRANSCOM . . . . . .U.S. Transportation Command

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

September 9, 1992

MEMORANDUM FOR ASSISTANT SECRETARY OF DEFENSE (PRODUCTION AND LOGISTICS)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT)
COMMANDER IN CHIEF, U.S. TRANSPORTATION COMMAND
INSPECTOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Report on the Audit of DoD Sealift Operations (Report No. 92-135)

We are providing this final report for your information and use. It addresses DoD sealift operations during Operation Desert Shield. Comments on a draft of this report were considered in preparing the final report. The audit was made in response to a request by the Secretary of Defense.

DoD Directive 7650.3 requires that all audit recommendations be resolved promptly. Therefore, we request that you provide final comments on the unresolved recommendations addressed to you by November 9, 1992.

As required by DoD Directive 7650.3, the comments must indicate concurrence or nonconcurrence in the finding and each recommendation addressed to you. If you concur, describe the corrective actions taken or planned, the completion dates for actions already taken, and estimated dates for completion of planned actions. If you nonconcur, you must state your specific reasons for each nonconcurrence. If appropriate, you may propose alternative methods for accomplishing desired improvements. We also ask that your comments indicate concurrence or nonconcurrence with internal control weaknesses highlighted in Part I.

The courtesies extended to the audit staff are appreciated. If you have any questions on this audit, please contact Mr. John Gebka at (703) 692-3303 (DSN 222-3303) or Mr. Darrell Eminhizer at (703) 692-3458 (DSN 222-3458). The planned distribution of this report is listed in Appendix L.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Enclosure

cc:
Secretary of the Army
Secretary of the Navy
Assistant Secretary of Defense (Program Analysis and Evaluation)
Commander in Chief, U.S. Central Command
Director, Joint Staff

Office of the Inspector General, DoD

AUDIT REPORT NO. 92-135 **September 9, 1992**
(Project No. 1LC-5001)

DOD SEALIFT OPERATIONS

EXECUTIVE SUMMARY

Introduction. From August 7, 1990, through January 15, 1991, sealift operations delivered about 23.7 million square feet of U.S. surge cargo in support of Operation Desert Shield at a cost of about $1 billion.

Objective. Our objective was to determine if DoD sealift operations were functioning in an effective manner to support surge requirements resulting from Desert Shield. The audit focused on sealift capability, ship operations, port handling, and material in-transit accountability. We also evaluated the effectiveness of related internal controls.

Audit Results. Although sealift operations effectively met the needs of Desert Shield and actions are underway to improve U.S. sealift capabilities, selected aspects of sealift operations need further attention.

o Sufficient U.S.-owned sealift could not be mobilized to unilaterally meet initial surge requirements for Operation Desert Shield. DoD relied on 105 foreign flag ships at a cost of $91 million to deliver 6.8 million square feet of surge cargo (Finding A).

o Sealift performance of cargo ships was reduced by slow steaming and idle time. DoD lost 3,000 sail days at a cost of $52.6 million due to ships' slow steaming and idle time (Finding B).

o The Military Sealift Command (MSC) did not always reduce payments to contractors when ships were placed off-hire. MSC overpaid ship operators an estimated $392,000 (Finding C).

o The Military Traffic Management Command did not develop planning estimates of the total time needed to move ships through ports. As a result, the movement of cargo to the overseas theater was delayed, and the operational commander could not accurately plan and coordinate arrival of unit cargo (Finding D).

o DoD lost accountability of surge cargo shipped to Southwest Asia. As a result DoD was not assured that all cargo shipped to Southwest Asia was off-loaded. (Finding E).

Internal Controls. Controls were insufficient to effectively validate payments for ships services or to maintain accountability over cargo shipped to Southwest Asia during Desert Shield. See Findings B, C, and E for details on these weaknesses and Part I for a description of the controls assessed.

Potential Benefits of Audit. We identified monetary benefits totaling $392,000 related to recovery of overpayment to ship contractors for off-hire time. We also identified nonmonetary benefits of improved mobilization and performance by the Ready Reserve Force (RRF), improved controls over slow steaming and idle time, improved sealift requirements planning, and better visibility and control over surge cargo shipments between ports (see Appendix J).

Summary of Recommendations. We recommended development of criteria to justify reported readiness status of RRF ships, expansion of the mix of RRF ships test activated, validation of readiness report accuracy, use of more shipyards to activate the RRF, periodic activation of the office responsible for integration and allocation of shipyard work, inclusion of additional performance provisions in some ship contracts, development of a single identification and tracking system, recovery of overpayments made to ship operators, establishment of more accurate estimates for moving ships through port, establishment of controls for reconciliation of cargo manifests, and upgrade of hardware for the automated cargo system.

Management Comments. The Assistant Secretary of Defense (Production and Logistics) did not fully agree that criteria should be developed to justify the reported readiness status of RRF ships. The Navy indicated that procedures for activating RRF ships would be revised to annually test activate RRF ships placed in a high state of readiness but did not state whether it would expand the mix of RRF ships test activated. The Navy agreed to use Navy shipyards and additional commercial shipyards to activate RRF ships, and stated the Navy office responsible for integration and allocation of shipyard work would be activated in future wargames. U.S. Transportation Command (TRANSCOM) did not agree to include additional performance provisions in contracts with ship operators. TRANSCOM agreed to develop a single system to track ship movements and cargo in either peacetime or wartime and to collect overpayments made to ship operators. TRANSCOM agreed to establish more accurate port time estimates to improve sealift planning. TRANSCOM also agreed to establish stronger controls to ensure intransit accountability of DoD cargo during a deployment, but stated it was the Services' responsibility to upgrade hardware for the automated cargo system.

In addition to management comments from addressees, we received comments from the Assistant Secretary of the Defense (Program Analysis and Evaluation). Part II contains a complete discussion of managements' comments to the recommendations, and Part IV contains the complete text of managements' comments.

We request that the Assistant Secretary of Defense (Production and Logistics) and the Chief of Naval Operations respond to the unresolved issues in this final report by November 9, 1992.

Audit Response: After considering managements' comments to the draft report, we made some revisions to the final report. We have further clarified our positions on the need to more quickly mobilize U.S-owned sealift, hold ship operators more accountable for ship performance, improve planning estimates for port operations, and maintain intransit accountability of cargoes. We revised final report Recommendation A.1. to more specifically address measures needed to justify the specific readiness of an RRF ship. We clarified Recommendation A.2.a. in the final report to require that the accuracy of the RRF readiness reports be validated. We revised Recommendation B.1.a. to have the Memorandum of Agreement between DoD and DOT require that contracts for RRF ships include steaming speeds and provide for payment deductions when slow steaming occurs. Part IV "Audit Response to Management Comments on the Findings" is a complete discussion of our response to managements' comments.

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This report was prepared by the Logistics Support Directorate, Office of the Assistant Inspector General for Auditing, DoD. Copies of the report can be obtained from the Information Officer, Audit Planning and Technical Support Directorate, at (703) 614-6303.

PART I - INTRODUCTION

Background

On August 2, 1990, Iraq invaded Kuwait. On August 7, 1990, the United States initiated Operation Desert Shield. During Desert Shield (August 7, 1990, through January 15, 1991), the majority of the dry cargo moved to the Southwest Asia theater (27.9 million square feet) was U.S. surge cargo. Surge cargo is the heavy equipment that supports initially deployed units. Surge cargo is comprised mainly of large vehicles, tanks, weapon systems, and aircraft that are not easily containerized. Sealift delivered 23.7 (85 percent) million square feet, of the U.S. surge cargo at a cost of about $1 billion.

During Desert Shield, the Military Sealift Command (MSC) acquired 253 ships to deliver surge cargo. Of the 253 ships, 209 ships completed at least one delivery of surge cargo to Southwest Asia. The remaining 44 ships did not complete a delivery during Desert Shield. Of the 209 ships that made deliveries, 104 were United States owned sealift, which delivered 16.9 million square feet of surge cargo; and 105 ships, including 7 donated ships, were foreign flag sealift, which delivered 6.8 million square feet of surge cargo. Appendix A contains a more detailed description of the ships and the acquisition processes for obtaining ships from each source. The surge cargo, which originated primarily in the United States and Europe was shipped through about 33 seaports. The major seaports receiving the surge cargo were Ad Dammam and Al Jubayl, Saudi Arabia.

The movement of surge cargo for Desert Shield required accurate movement requirements data and close coordination among the Joint Chiefs of Staff, the U.S. Central Command (CENTCOM), the U.S. Transportation Command (TRANSCOM), the MSC, and the Military Traffic Management Command (MTMC). The Joint Chiefs of Staff identified and tasked units to support wartime operations. TRANSCOM developed transportation plans and coordinated surge cargo movement to the Southwest Asia theater. TRANSCOM used the capabilities of MSC and MTMC to provide sealift support to CENTCOM. MTMC and MSC coordinated to translate data on deploying units' equipment into the number of ships needed to move the equipment. MTMC arranged to move the equipment through the seaports. MTMC communicated this information to MSC. MSC contracted for the ships and arranged for them to be at seaports for loading and unloading.

MSC is responsible for providing sealift capability needed to deploy and sustain forward deployed U.S. Armed Forces worldwide during peacetime and war. MSC's primary functions related to providing sealift are:

o contracting for the acquisition of strategic sealift and ocean transportation;

o administering payments on government contracts;

o exercising operational control for MSC ships under direct U.S. Government control and through commercial operating companies for ships under charter contract;

o developing plans for the effective use and control of military-owned and commercial ocean transportation resources made available to DoD under mobilization or other emergency conditions; and

o controlling, operating, and administering Government-owned ships assigned, and all other ships required to provide ocean transportation service for the movement of personnel, material, and petroleum.

MTMC was responsible for operating and managing cargo loading operations at most United States and overseas seaports of embarkation (SPOE) during Desert Shield. MTMC used Army Reserve transportation terminal units to manage port loading operations. Port loading operations included identifying and documenting cargo upon arrival at the SPOE, staging the cargo for loading, managing the loading of cargo by contract personnel at the SPOE, and documenting the actual cargo loaded onto ships provided by MSC.

The U.S. Army 7th Transportation Group, Fort Eustis, Virginia, was responsible for off-loading operations of U.S. Army and U.S. Air Force cargo from ships at the major seaports of debarkation (SPOD) in Ad Dammam and Al Jubayl, Saudi Arabia. The U.S. Marine Corps 1st Marine Expeditionary Force, Camp Pendleton, California, was responsible for the offloading of Marine Corps cargo at Al Jubayl. Port operations at the SPOD include the offloading of cargo from the ships, documenting and accounting for receipt of the cargo, and distributing the cargo to the appropriate military combat or supply unit.

Objective

The objective of the audit was to determine if DoD sealift operations were functioning in an effective and efficient manner to support surge requirements resulting from Desert Shield. The audit focused on sealift capability, ship performance, port handling, material in transit accountability, and related policies and procedures. We also evaluated the effectiveness of internal controls.

The initial audit objectives were revised upon completion of the survey phase. We did not perform audit verification work on the announced objective of ship support (maintenance, manpower, and

supplies). Our survey work indicated that the General Accounting Office (GAO) and the Department of Transportation's (DOT) Inspector General were providing audit coverage of this area.

Scope

Our audit scope was limited to an evaluation of sealift operations related to meeting dry cargo surge requirements of Desert Shield. Sealift operations related to sustainment cargo and fuel deliveries were not considered. We reviewed surge cargo sealift operations that occurred between August 7, 1990, and January 15, 1991. We evaluated MSC's ability to effectively obtain sufficient sealift to meet requirements and to efficiently and effectively use sealift resources. We also reviewed MTMC's and the U.S. Army 7th Transportation Group's ability to effectively and efficiently process dry cargo ships through the ports and to account for surge cargo.

Our review included an analysis of the National Security Sealift Policy, Memorandum of Agreement between the DoD and DOT concerning the Ready Reserve Force (RRF), DoD Directives, ship message traffic, daily situation reports, ship casualty reports, sail orders, and ship manifests. We also reviewed financial records to include invoices and payments for ships used during Desert Shield.

The Quantitative Methods Division of our Audit Planning and Technical Support Directorate selected a sample of 80 ships from the universe of 253 ships acquired during Desert Shield. This sample was used in our evaluation of the specific objectives of ship performance, port handling, and material in transit accountability.

The audit was made from October 1990 through December 1991 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD, and accordingly, included such tests of internal controls as were considered necessary. Activities visited or contacted during the audit are shown in Appendix K.

Internal Controls

The audit identified material internal control weaknesses as defined by Public Law 97-255, Office of Management and Budget Circular A-123, and DoD Directive 5010.38. Controls were insufficient to hold ship operators accountable for ship performance, effectively validate payments for ships' services, or account for material in transit during Desert Shield. These internal control weaknesses are discussed in Part II, Findings B, C, and E, respectively. Recommendations B.1.a., B.2., C.1., E.1., and E.2., if implemented, will correct the weaknesses. We have determined that monetary benefits of about $392,000 can

be realized by implementing Recommendation C.2. A copy of the final report will be provided to the senior official responsible for internal controls within TRANSCOM, MSC, and MTMC.

Prior Audits and Other Reviews

The Inspector General, DoD; GAO; and the Inspector General, DOT completed reviews related to specific aspects of sealift operations related to Desert Shield. The audits and reviews are summarized in Appendix B.

PART II - FINDINGS AND RECOMMENDATIONS

A. SEALIFT CAPABILITY

Sufficient U.S.-owned sealift could not be mobilized to unilaterally meet the initial surge requirements for Operation Desert Shield. This occurred because U.S. commercial and RRF ships were not readily available. U.S.-owned sealift did not include enough militarily suitable ships. Funding shortfalls precluded the DOT from adequately maintaining RRF ships to meet activation time frames. Further, DOT inaccurately reported the readiness status of the RRF to DoD because DoD and DOT had not developed clear criteria to justify the reported readiness status of RRF ships. U.S. shipyard capability was also ineffectively used to activate RRF ships during Desert Shield. As a result, DoD lost the ability to mobilize about 1.9 million square feet of RRF sealift capacity during Desert Shield, and relied on foreign flag ships to deliver about 6.8 million square feet of cargo at a cost of about $91 million. The inability to mobilize sufficient U.S.-owned sealift to meet initial surge requirements increases the risk that the U.S. Government will not be able to unilaterally respond to future contingencies as required by National Security Sealift Policy.

DISCUSSION OF DETAILS

Background

Policies on national security are issued by the President. National Security Sealift Policy, issued October 5, 1989, addresses sealift for defense of U.S. interests. The policy states, "We must be prepared to respond unilaterally to security threats in geographical areas not covered by alliance commitments. Sufficient U.S.-owned sealift resources must be available to meet requirements for such unilateral response." The policy requires DoD to obtain U.S.-owned sealift to support security threats in such operations as Desert Shield.

To meet DoD surge cargo requirements during Desert Shield, MSC obtained sealift from three U.S.-owned sources. The first U.S.-owned source was those ships under the direct control of DoD. DoD controlled ships included fast sealift ships (FSS), which are in a standby mode and exist for the purpose of meeting DoD surge cargo needs; common user ships, which exist for the purpose of meeting DoD's daily peacetime needs; and preposition force (PREPO) ships, which are prepositioned in various theaters and exist primarily to meet combat needs of military theater commanders. The second U.S.-owned source was commercial U.S. flag ships, consisting of about 140 ships, which are chartered by MSC after their need is identified. The third source was DOT's

RRF which are kept in various states of readiness and exist for the purposes of meeting DoD's surge cargo requirements.

The four major types of ships used to meet cargo requirements during Desert Shield were the roll-on, roll-off (RORO), breakbulks, barge carriers, and containers. RORO ships are best suited for transporting vehicles and other mobile cargoes. Cargo is driven or moved over ramps onto RORO ships, enabling rapid loading and unloading. Cargoes on breakbulk ships are loaded and unloaded by cranes. These ships transport all forms of cargo from boxes to heavy tanks. Barge carriers transport cargoes in previously loaded barges. The two types of barge carriers are lighter aboard ships, which loads and unloads its barges with a crane, and sea barges, which use an elevator to load and unload cargo. Container ships transport cargoes in prepackaged metal containers ranging from 20 to 40 feet long, which are loaded and unloaded by cranes at shore.

MSC, as ship agent for DoD, and DOT are assigned mutual responsibility for oversight of the RRF ships, the largest source of U.S.-owned sealift available for surge cargo. This mutual DoD and DOT responsibility is detailed in a "Memorandum of Agreement between the Department of Defense and the Department of Transportation," dated October 15, 1988. The agreement requires MSC to define the mix of ships. DOT is to maintain the ships in accordance with standards established by MSC and DOT. DOT is to maintain the ships in such a state that they can be activated and ready for use within a specified time frame provided by MSC, that is, within 5, 10, or 20 days. DOT is to advise MSC when the specified time criteria cannot be met for each ship and of the estimated time of correction. The memorandum requires MSC and DOT to annually review the maintenance, readiness, repair, and operational tests of RRF ships.

While DOT is responsible for RRF shipyard work, in times of emergency, DoD can assist in the activation of the RRF. The Navy's Office of the Coordinator for Ship Repair and Conversion, Naval Sea Systems Command, has the authority to coordinate and delegate work load among U.S. shipyards in times of national urgency. Under DoD Directive 5030.9, "Coordination of Shipbuilding, Conversion and Repair for the Department of Defense," January 19, 1972, the Navy is to prioritize and expedite DoD sponsored work in Government-owned and private shipyards.

In the early phases of a security threat, time is critical. There is an initial surge requirement for materiel to support deployed troops. While personnel and light equipment can be airlifted to an area of operations quickly, heavier materiel, for example, tanks and artillery, require sealift. Without the heavier materiel, the early deployed personnel and equipment are vulnerable to an adversary's aggressive actions. Specified mobilization time frames for the availability of the FSS and the RRF were established to meet this time critical sealift of surge cargo.

Suitability of U.S. Ships

U.S. sealift did not consist of ship types suitable for the surge cargo encountered during Desert Shield. RORO ships are the most militarily suitable ships for surge cargo. RORO ships can usually load more cargo, and with the use of ramps, can load cargo much quicker than breakbulk ships. In addition, DoD controlled RORO ships can usually deliver surge cargo faster than other ships because they maintain higher operating speeds. Of the 253 dry cargo ships acquired during Desert Shield 94 (37 percent) were RORO ships. Of the 94 RORO ships acquired, only 51 came from U.S.-owned sources (25 from DoD, 17 from DOT, and 9 from commercial U.S. flag). The remaining 43 RORO ships were foreign flag ships.

Of the U.S.-owned sources used during Desert Shield, DoD controlled sealift proved to be the best suited for surge cargo requirements. The eight FSS under MSC control were large RORO ships, capable of traveling at speeds up to twice as fast as some of the breakbulk ships used during Desert Shield. The PREPO includes 13 maritime prepositioning ships under the control of the military theater commanders. These ships were militarily suitable RORO ships that were able to quickly respond when ordered to support Desert Shield. However, the DoD controlled sealift was not sufficient to meet the surge requirements of Desert Shield; thus, MSC quickly requested and used commercial U.S. flag dry cargo ships and DOT's RRF ships to augment DoD controlled sealift.

Commercial U.S. flag sealift and RRF sealift were not well suited to support Desert Shield surge cargo requirements. Of the 140 dry cargo ships in the U.S. flag inventory, 17 (12 percent) were RORO type ships and 27 (19 percent) were breakbulk ships. The remaining 96 ships, mostly container ships, were ill-suited for the movement of surge cargoes.

MSC contracted for 24 of these 140 dry cargo ships during Desert Shield, of which only 9 were RORO ships. Contractual agreements were not obtained by MSC to charter the remaining eight U.S. flag owned RORO ships during Desert Shield because they were reported by the Navy and TRANSCOM to be unsuitable for military surge

cargoes. An additional problem encountered by MSC was the location of U.S. commercial ships at the start of Desert Shield. Due to the nature of commercial business, these ships were scattered around the world at the beginning of Desert Shield; therefore, all could not respond immediately to surge cargo movement requirements.

Of the 83 dry cargo ships in the RRF, only 17 (21 percent) were RORO ships. The remaining 66 ships were primarily breakbulk ships. The 17 RRF RORO ships however, had a capacity equal to about 59 RRF breakbulk ships. During Desert Shield, MSC requested 61 RRF ships from DOT, including all 17 RORO ships.

The lack of Government-owned RORO ships and limited availability of commercial U.S. flag RORO ships caused DoD to use less efficient breakbulk ships, which carry less capacity, take longer to load, and are usually slower than RORO ships. The limited availability of U.S. RORO capacity delayed the movement of surge cargo overseas and contributed to the dependence on foreign flag capacity to support Desert Shield surge cargo requirements. During Desert Shield, MSC contracted for 137 foreign flag ships of which 105 delivered cargo. Of 105 foreign flag ships used to support surge cargo requirements, 34 were RORO and 71 were breakbulk.

Mobilization of RRF Fleet

The RRF sealift requested by MSC was not delivered in planned time frames by DOT. During Desert Shield, MSC requested 61 RRF ships that were activated at a cost of about $103 million. Of the 61 RRF ships requested, only 13 (21 percent) RRF ships were delivered in the prescribed time frames. The remaining 48 ships were from 1 to 126 days late, with 14 days being the average. The primary causes of the RRF mobilization difficulties were inadequate funding for ship maintenance, repair, and test activations; the inaccurate readiness reporting of the RRF to DoD; and the limited use of U.S. shipyards to break out the RRF.

Mechanical condition. During Desert Shield, the RRF proved to be in the poorest condition of the U.S.-owned sources of sealift used. The mechanical condition of the RRF ships was the most significant factor in the inability of the ships to meet prescribed activation time frames of 5, 10, or 20 days. In September 1991, the Inspector General, DOT, reported that 29 of the 46 ships requested during the first 32 days of Desert Shield could not be activated on time primarily because of the poor mechanical condition of the RRF ships. There were also some problems with obtaining and retaining crews with appropriate mechanical experience. Mechanical problems existed throughout the activation of the 46 ships reviewed and were attributed to lack of use, improper deactivation, condition of ships at time of acquisition, age of equipment, shipyard repairs and upgrades not tested upon completion, and uncorrected deficiencies. The

Inspector General, DOT, noted that some of these RRF ships had not been operated for as long as 14 years. The Inspector General, DOT, made recommendations that DOT ensure that mechanical problems identified during operations, deactivations, and repairs of existing equipment or installations of new equipment on RRF ships are tested and corrected prior to returning to storage locations.

Funding. The Inspector General, DOT, report states that in FY 1990, DOT's budget request to Congress for the RRF was $239 million. This included $153.9 million primarily for fleet additions and the porting of ships at multiple locations, and $85.1 million for ship maintenance, repair, and test activations. DOT received a FY 1990 appropriation of $89 million. The reduction included almost $60 million in the maintenance and operations account. Coupled with a FY 1989 carryover and other receipts, DOT had $102.1 million available in FY 1990 (57 percent less than DOT's RRF request to Congress). According to DOT officials, program adjustments were made to minimize the impact on the readiness of the RRF fleet.

Readiness reporting. The Memorandum of Agreement between DoD and DOT tasked DOT with reporting the readiness status of all RRF ships monthly. DOT issued a report to DoD on the readiness of RRF ships in August 1990 to DoD just before Desert Shield. However, under the Memorandum of Agreement concerning the RRF, DoD and DOT had not established a reporting criteria that accurately represented the ability of RRF ships to be available within prescribed time frames.

In 1989, MSC provided DOT with definitions of readiness ratings from C-1, no mission degrading deficiencies, to C-5, scheduled major repairs in progress, unable to meet assigned readiness criteria. MSC and DOT did not define how a ship was to be rated. Without more definitive criteria, DOT could not accurately determine if RRF ships could be activated within specified timeframes. For example, the Cape Isabel, a RORO ship in the RRF since 1986 and not previously activated, was assigned a 5-day activation period and reported by DOT as C-2 (minor deficiencies repairable within assigned activation period). When activated for Desert Shield, major mechanical problems with bilge, ballast, and boiler contributed to the Cape Isabel being delivered 6 days late to MSC. This delayed U.S.-owned sealift capacity needed to move surge cargo.

DOT reported, 5 days before the start of Desert Shield, that 50 of the 61 ships requested would be available in the prescribed time frames of 5, 10, or 20 days. However, only 13 (26 percent) of the 50 ships actually met their anticipated time frames. The following chart summarizes the discrepancies between what DOT reported and what was actually experienced.

READY RESERVE FORCE SHIPS
READINESS VERSUS ACTUAL PERFORMANCE
(AUGUST 2, 1990 - JANUARY 15, 1991)

Type of Ship	Readiness Category	Number of Ships Called up	DOT Reported Readiness Ready/Not Ready (August 1, 1990)	Actual Performance Ready/Not Ready (August 2, 1990 - January 15, 1991)
RORO	5-Day	16	12/4	3/13
	10-Day	0	0	0
	20-Day	1	0/1	1/0
Subtotal		17	12/5	4/13
Barge Carrier	5-Day	7	6/1	2/5
	10-Day	0	0	0
	20-Day	0	0	0
Subtotal		7	6/1	2/5
Breakbulk	5-Day	26	23/3	3/23
	10-Day	11	9/2	4/7
	20-Day	0	0	0
Subtotal		37	32/5	7/30
Total		61	50/11	13/48

The DOT and MSC did not adequately test the readiness of the RRF ships. As the Inspector General, DOT, reported in September 1991, those RRF ships that had not been activated since acquisition were activated an average of 9 days late during Desert Shield. In comparison, nine ships that had been activated on a test basis (since August 10, 1987) were an average of 2.2 days late.

From 1977 through 1990, only 34 RRF ships had been activated on a test basis. Of these 34 RRF ships, 1 ship had been activated 5 times, 15 ships 2 times, and the remaining 18 ships 1 time. Under the Memorandum of Agreement between DoD and DOT, MSC can activate the RRF ships as necessary to test their availability and readiness. However, the cost of activation and deactivation is an inhibiting factor in testing the RRF. The average cost of each activation and deactivation of the RRF during Desert Shield was $1.7 million and $3.3 million, respectively. Nevertheless, MSC must take a more active role in the testing of the RRF ships

to more effectively evaluate the readiness of the RRF to meet surge cargo requirements in the future.

Shipyard capacity. During Desert Shield, U.S. commercial and Navy shipyard capacity were not effectively used to activate RRF ships. The Navy's Office of the Coordinator for Ship Repair and Conversion, Naval Sea Systems Command, has the authority to coordinate and allocate work load among U.S. shipyards in times of national urgency. The Navy office assigned to coordinate shipyard scheduling and distribution was not activated during Desert Shield.

Overall, DOT was responsible for activating the RRF ships during Desert Shield. Of the 25 commercial shipyards used to activate the RRF, 20 were smaller yards with less than 1,000 employees. According to DOT, the smaller shipyards were used because the larger yards were involved primarily with Navy work. Of the 61 activated RRF ships only 12 ships had any activation work performed on them by Navy or commercial shipyards employed with major DoD work.

Navy shipyards had available capacity because combat ships were being deployed to Desert Shield missions rather than being placed in the shipyard for scheduled maintenance. Of the eight Navy shipyards with capital investments of over $13 billion and over 60,000 employees, only one (Philadelphia Navy Shipyard) performed any RRF activation work on dry-cargo ships for the purposes of meeting surge cargo requirements. The Philadelphia Navy Shipyard, however, failed to activate three RRF ships because of poor overall condition of the RRF ships and the shipyard's lack of familiarity with RRF activation procedures and commercial ship standards. Navy shipyards had not been used to test activate the RRF ships and therefore did not have experience in such activations. Because of the problems encountered at Philadelphia, the activation of these three ships was completed at commercial yards unrelated to DoD. The remaining 9 of 12 RRF activations were performed at 2 of the 15 commercial yards with major DoD work.

DoD could have accelerated the breakout of the RRF ships by having capability available at both commercial and Navy shipyards. During Desert Shield RRF ships were requested to be activated at staggered intervals. The following chart demonstrates the staggered requests for the 61 RRF ships requested during Desert Shield.

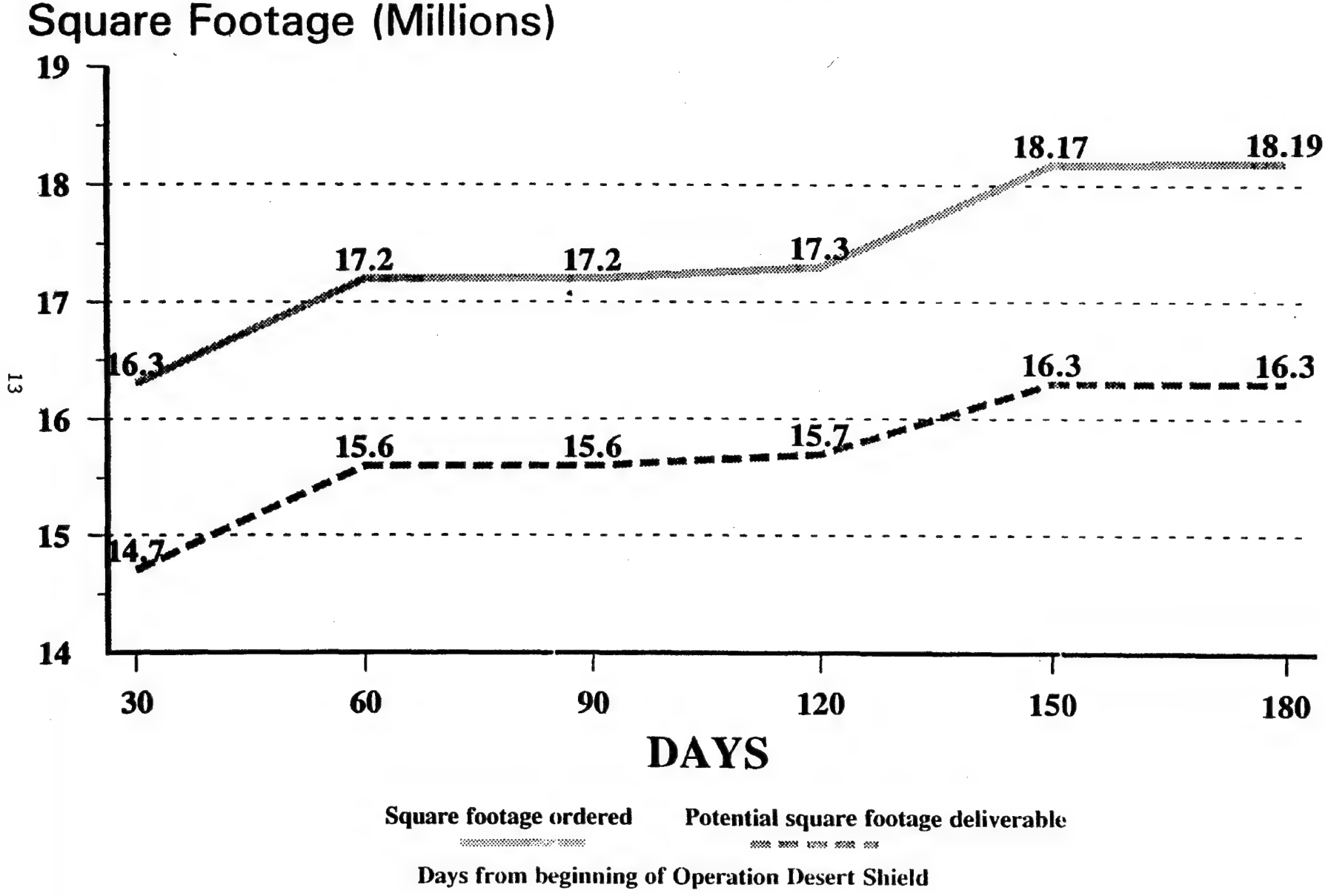
RRF SHIPS REQUESTED DURING DESERT SHIELD

Number of RRF Ships Requested	Date Requested
17	August 10, 1990
1	August 12, 1990
5	August 14, 1990
5	August 18, 1990
8	August 20, 1990
2	August 30, 1990
3	September 21, 1990
1	November 9, 1990
16	December 4, 1990
2	December 8, 1990
1	January 3, 1991
61	

If MSC chose to activate all RRF ships at the same time, an authority to coordinate commercial and Navy shipyard resources would be necessary to minimize delays in the full activation of the RRF. In addition to distributing the activation workload, planning for the use of Navy shipyards in RRF activations can provide for a larger more effective participation by these shipyards. Procedures need to be established at Navy shipyards to participate in activations and test activations of the RRF ships. A coordinated and planned use of shipyards could minimize RRF activation delays.

U.S.-owned sealift shortfalls. During Desert Shield, sufficient U.S.-owned sealift capacity was not mobilized to unilaterally move initial surge requirements. As a result, the stated U.S. national security policy of unilaterally meeting the initial surge requirements was not implemented. If all 61 RRF ships were activated within planned time frames, these ships had the potential to deliver about 18.2 million square feet of total ship capacity of surge cargoes. However, actual RRF activation time frames experienced during Desert Shield reduced potential surge cargo deliveries to 16.3 million square feet of ship capacity. RRF activation delays resulted in the rapid loss of sealift capacity; that is, of the 1.9 million square feet lost during Desert Shield, 1.6 million (84 percent) square feet were lost in the first 30 days, as shown in the following chart.

RRF LOST SEALIFT CAPACITY



Of the 253 ships that MSC obtained during Desert Shield, 137 (54 percent) were foreign flag ships. Of the 137 foreign flag ships, 105 were used to deliver about 6.8 million of 23.7 million square feet of surge cargo at a cost of about $91 million. In future contingencies, foreign flag capacity may not be available, which would limit DoD's ability to respond to overseas contingencies.

Sealift initiatives. Since the successful completion of Operation Desert Storm, DoD and DOT have worked to increase the capability of U.S.-owned sealift to meet DoD surge cargo requirements and to decrease dependence on foreign flag sealift. These actions include a joint DoD and DOT working group study of the RRF, DoD's completion of a congressionally mandated mobility study to establish DoD's movement requirements through 1999, DoD funding to procure additional sealift capacity, and a DOT funding request to expand and better maintain the RRF.

RRF working group report. In October 1991, the joint RRF working group, in conjunction with the Logistics Management Institute, issued "The Ready Reserve Force: Enhancing a National Asset." The report draws upon lessons learned from the activation of RRF ships in support of Desert Shield and Operation Desert Storm. The working group acknowledges the significant contribution of the RRF during Desert Shield, but states that the RRF activations were burdened by a variety of management problems derived from shortcomings related to ship readiness, maintenance, operation, and storage and some issues involving shipyards and ship repair. These problems degraded the ability of many of the ships to be activated within planned time frames. The working group concluded that the RRF can be made fully responsive and recommended that DoD and DOT jointly implement various changes in RRF management, shipyard management, and ship repair and manning.

Mobility Requirements Study. In the Mobility Requirements Study, issued January 23, 1992, DoD proposes a plan to acquire additional sealift capacity equal to approximately 20 RORO ships, to increase the PREPO sealift by about 2 million square feet of Army combat and combat support equipment, to add 3 million square feet of surge sealift capability for the rapid deployment of heavy Army divisions and support from the United States, and to expand the RRF from 96 ships to 142 ships (of which 102 will be dry cargo) or alternatively, initiate a build and charter program. In addition, the readiness status of the high capacity RORO ships in the RRF should be increased. These RRF ships should be put in a 4-day readiness status, should require no shipyard activation work, should be ported at

designated SPOE, should have a partial crew on board at all times when inactive, and should have annual operational tests. The study covers a wide range of possible overseas contingencies and the sealift capacity needed to meet those contingencies.

Sealift funding action. DoD was funded about $1.9 billion for FYs 1990 through 1992 to procure additional sealift capacity. DoD requested $1.2 billion in the FY 1993 budget for additional sealift capacity. The Department of the Navy has requested proposals from the shipbuilding industry for designs of RORO ships that can be used commercially as well as militarily. The Navy has contracted and received initial designs from the shipbuilding industry for RORO ships that are militarily useful. DOT requested $234 million in FY 1993 funds for the RRF. Of this amount, $104 million is to be used for the acquisition of ships for the RRF, with the remaining $130 million to be used primarily for the maintenance of the RRF.

Future sealift capacity. DoD can obtain additional sealift capacity through a more dependable, responsive, and militarily suitable RRF. A more dependable RRF can be attained with the establishment of a more accurate measure of the ability of RRF ships to meet planned delivery time frames, improved maintenance, and the periodic testing of RRF ships. A more responsive RRF can be attained with planned and coordinated activation at major commercial and Navy shipyards. A more militarily suitable RRF can be attained through the acquisition of additional high capacity RORO ships in the RRF. By achieving a more dependable, responsive, and suitable RRF, DoD's ability to unilaterally meet sealift needs is enhanced and dependence on foreign flag sealift reduced.

RECOMMENDATIONS FOR CORRECTIVE ACTION

1. We recommend that the Assistant Secretary of Defense (Production and Logistics), in coordination with the Chief of Naval Operations and Department of Transportation (DOT) develop criteria that must be met to justify the specific readiness status reported to DoD by DOT for each Ready Reserve Force ship. This readiness guidance should be incorporated, by reference, in the Memorandum of Agreement between DoD and DOT.

2. We recommend that the Chief of Naval Operations:

a. Expand the mix of Ready Reserve Force ships that are test activated, and periodically validate the accuracy of the Department of Transportation's readiness reports on the Ready Reserve Force.

b. Include Navy shipyards and commercial shipyards that are building DoD ships in the activation of Ready Reserve Force ships, and include these shipyards in the activation of Ready Reserve Force ships during training exercises.

c. Periodically, activate the Navy's Office of the Coordinator for Ship Repair and Conversion to make sure that activation of the Ready Reserve Force can be integrated with work taking place or scheduled at Navy and major commercial shipyards.

MANAGEMENT COMMENTS

The Assistant Secretary of Defense (Production and Logistics) partially concurred with draft report Recommendation A.1. The Assistant Secretary agreed that the Memorandum of Agreement should be revised. He stated, however, that readiness criteria in the past had been defined separately from the Memorandum of Agreement based on the dynamic and detailed nature of the criteria. He added that the Navy periodically reviewed and revised the criteria, as necessary. He also stated that inaccurate readiness reports were caused by the lack of funding to adequately maintain and periodically activate the RRF, which resulted in readiness reports being based upon last known performance.

The Assistant Secretary of the Navy (Research, Development, and Acquisition) provided unsolicited comments to Recommendation A.1. He nonconcurred with the draft report recommendation, stating that readiness criteria already exists under a Chief of Naval Operations Memorandum dated May 17, 1983, which requires DOT to provide readiness information on each ship monthly.

The Assistant Secretary of the Navy (Research, Development, and Acquisition) responded to Recommendations A.2.a., A.2.b., and A.2.c. The Navy neither concurred nor nonconcurred with Recommendation A.2.a. However, it stated that for those RRF ships that are to be placed in a relatively high state of readiness (Reduced Operating Status of 4 days) there are plans to annually test activate and perform engineering trials in alternate years. During test activation exercises, MSC will provide minimal warning time to DOT on those ships it plans to identify for activation. In addition, the Navy stated that it reviews DOT's RRF readiness reports and readiness reporting process, monthly.

The Navy concurred with Recommendation A.2.b. without further comment.

The Navy did not concur or nonconcur with Recommendation A.2.c. It stated that activation of the Office of Coordinator for Ship Repair and conversion was considered during Desert Shield and it was decided not to activate this Office because DOT already had contracts in place with private shipyards to perform activation of the RRF ships; DOT did not have funds available to reimburse contractors for other work that would be displaced if the Government directed reprioritization of private shipyard work through the Office of the Coordinator; and activation of the coordinator entailed a significant effort that offered no apparent value to the RRF activation efforts for Desert Shield.

It added that during previous wargame scenarios, the coordinator office was activated resulting in significant benefits, and that during future wargames, as appropriate, the office will be reactivated.

AUDIT RESPONSE

Although the Assistant Secretary of Defense (Production and Logistics) indicated partial concurrence with draft report Recommendation A.1., we do not consider his comments responsive to the intent of the recommendation. The Chief of Naval Operations Memorandum does not include criteria that must be met to justify the specific readiness status reported for a RRF ship. Without any criteria, DoD and DOT have no common agreement on what actions are needed for a ship to meet a specified readiness status. Only 8 of the 41 RRF ships that DOT reported would be ready in 5 days were delivered to DoD on time during Desert Shield.

We do not agree that the lack of funding for maintenance of RRF ships precluded DOT from accurately reporting the readiness status of RRF ships. Because of the lack of funding to maintain RRF ships, DOT should have been more vigilant in reporting the decline in readiness of the RRF. By developing more definitive criteria (such as availability of crews, test activations, and maintenance checks of critical equipment), DoD will have more assurance that the reported readiness status by DOT is accurate. We have revised Recommendation A.1. to more specifically state the need for definite criteria on the readiness status of RRF ships. Although these criteria do not need to be included in the Memorandum of Agreement between DoD and DOT, they should be incorporated by reference. We, therefore, request that the Assistant Secretary of Defense (Production and Logistics) consider revised Recommendation A.1. and provide additional comments.

We have also revised Recommendation A.2.a. to recommend that the Navy periodically validate the accuracy of DOT's reports on RRF readiness and not just review the reports. The Navy's response to the draft report recommendation was not clear. Although the Navy plans to annually test activate those RRF ships placed in a high state of readiness, the Navy does not state that the mix of the remaining RRF ships test activated will be expanded. From 1977 through 1990, only 34 RRF ships had been activated on a test basis. Of the 34 RRF ships, 1 had been activated 5 times, 15 ships activated 2 times, and the remaining 18 ships activated 1 time. Over 50 percent of the RRF dry cargo fleet of 83 ships was never test activated.

Although the Navy stated that RRF readiness reports were being reviewed, the reviews had no significant impact on reported accuracy before Desert Shield. Although DOT reported that 50 of the 61 RRF ships requested could meet their prescribed readiness timeframes, only 13 (26 percent) of the 50 ships were delivered

to DoD on time. The Navy's review should include a validation process to determine the accuracy of DOT's reports on RRF readiness. We therefore request that the Navy provide comments to revised Recommendation A.2.a. The Navy should concur or nonconcur with the recommendation and provide dates of completion for any corrective actions.

Although the Navy concurred with Recommendation A.2.b., we request that the Chief of Naval Operations provide the implementation date for this recommendation.

The Navy's response to Recommendation A.2.c. was not clear. Although the Navy agreed to activate the Office of Coordinator, as appropriate, during future war games and exercises, the Navy was unclear on whether the office would use major commercial shipyards in activating RRF ships during future exercises. Periodic activation of the office of coordinator to integrate RRF activation with work at major commercial and Navy shipyards would increase DoD alternatives for future activation of the RRF. By coordinating the use of shipyards, the Office of Coordinator could break out RRF ships faster in future contingencies. We, therefore, request that the Navy provide a definitive concurrence or nonconcurrence to Recommendation A.2.c., and dates for any planned corrective actions.

B. SEALIFT OPERATIONS

The operational performance of cargo ships used during Desert Shield was reduced by slow steaming and idle time. In some instances, MSC directed ships to proceed at "best speed" instead of contracted ship speed. In addition, MSC and DOT did not have provisions in all contracts to penalize ship operators for slow steaming. Further, when contracts included idle time penalties, they were not enforced because MSC could not require DOT to enforce off-hire contract provisions. Ships were idle because movement requirements were not clearly defined and data support systems could not meet the operational demands of Desert Shield. Slow steaming and idle time resulted in lost sealift capability and expenditures for unused sealift. Overall, we project for the 253 ships acquired in Desert Shield that about 3,000 (14 percent) of the 20,700 available sail days were lost at a cost of $52.6 million. Of the 3,000 lost sail days, the RRF accounted for 1,600 (53 percent) at a cost of $32.4 million.

DISCUSSION OF DETAILS

Background

Slow steaming occurs when the average ship speed between ports is less than the contracted ship speed. Commercial ship contracts have speed performance standards with penalty provisions when slow steaming occurs. MSC and DOT generally contracted for ship operators who contracted for ship crews. MSC contracted for ship operators on United States and commercial foreign flag ships, PREPO ships, common user ships, and Government-owned, contractor-operated ships, such as the FSS. DOT contracted for ship operators on RRF ships.

Idle time occurred when a ship was not steaming or was not involved in cargo operations to meet its mission. Idle time occurred when a ship had minor mechanical difficulties (ship repairs); was unable to perform its contracted mission due to, for example, major repairs (off-hire); or due to command decisions was unable to meet its mission (awaiting orders).

In peacetime, MSC tracked ship movements through the Voyage Information Planning and Analysis System. This data base provided a detailed record to monitor ship movements for operational control and billing purposes. After Desert Shield commenced, Voyage Information Planning and Analysis System was discontinued because it was unable to process ship movement information which became classified. To replace the peacetime tracking system, MSC area commands developed a manual system. This system, however, did not provide data at the same level of

detail as the peacetime tracking system, making it difficult for MSC to effectively monitor ship performance.

During Desert Shield, TRANSCOM used cargo data in the Joint Operation Planning and Execution System (JOPES) to determine the amount of sealift needed to move each unit's equipment. MTMC and MSC coordinated to translate the data into the number of ships needed to move this cargo and arranged to move the cargo through the ports. MSC procured the ships and positioned them at the ports. Effective sealift required close coordination among these commands and was dependent on accurate movement requirements data.

Slow Steaming

Slow steaming was a major deficiency in ship performance. DoD lost a projected 1,400 days, costing approximately $23.4 million, of 20,700 available days because ship operators traveled at less than contracted or registered speeds. Slow steaming delays the delivery of cargo overseas and requires DoD to obtain additional sealift to make up the shortfall. Slow steaming occurred because MSC directed many ships to sail at "best speed", which gave ship operators wide latitude to control steaming speeds. Because Government-owned, contractor-operated ships did not have a minimum contracted speed like commercial ships, MSC had no basis on which to hold ship operators responsible for steaming speeds.

Steaming speed. To evaluate steaming speed, we compared berth departure and arrival times to determine the actual steaming time that the ship operator took to travel between ports. The departure and arrival times were adjusted to Greenwich Median Time (Zulu). We divided the distance traveled by the ship registry speed for Government ships or contract speed for commercial ships to determine if the ship operator maintained steaming speed. Actual time was adjusted for documented delays, such as inclement weather, medical emergencies and canal transit, plus a 10-percent allowance was added for other contingencies. To determine if excess sailing time was taken, we compared the adjusted actual to the contracted or registered time. In the absence of any other known factors, we concluded that adjusted actual steaming time in excess of contracted or registered time was slow steaming. We estimated the cost by multiplying the slow steaming time by the operating charter rate paid the ship operator.

All slow steaming occurring among commercial chartered ships in support of Desert Shield was attributable to foreign flag ships. MSC directed many of these ships to proceed at "best speed" instead of contracted ship speed. MSC's area commands had issued sail orders to Government-owned ships to sail at best speed to conserve the ships' engines, but carried this phrase over to orders for commercial ships. Foreign flag ships incurred a projected 625 days in slow steaming (45 percent of the

1,400 days), costing about $9.1 million. For example, during 164 days under MSC contract, the Jolly Smeraldo, with a contracted speed of 16 knots (nautical miles per hour), incurred 27 days of slow steaming time because it steamed at an average speed of 11.5 knots. This cost the U.S. Government about $676,000. The Jolly Smeraldo, a RORO ship, carried three loads to Saudi Arabia, but could have crossed the oceans with its cargoes 27 less days had it not slow steamed.

Government controlled ships in our sample had 55 percent (projected 766 days at a cost of about $14.3 million) of the slow steaming. RRF ships accounted for a projected 469 days, costing about $9.4 million, of the slow steaming time by Government ships. For example, the Cape Ducato, a RRF RORO ship, which was under MSC control for 168 days, logged 44 days of slow steaming time. This cost the Government about $893,000. The Cape Ducato, with a steaming speed of 20.5 knots, steamed at an average speed of 12.5 knots. The Cape Ducato could have made at least one additional trip to Saudi Arabia had it not slow steamed. A complete summary of voyages made by sample ships is shown in Appendix C.

Slow steaming penalty. DOT contracted with the ship operators for the RRF, but the DOT contracts did not have provisions for deductions for slow steaming. The lack of a penalty precluded MSC from enforcing slow steaming deductions for Government ships, such as the $893,000 cost for the Cape Ducato's slow steaming. MSC's contracts with operators of Government-owned ships, such as the FSS, also did not have a penalty provision for slow steaming. For the projected 121 days of slow steaming by the FSS costing about $1.2 million, MSC was precluded from penalizing the ship operators. A complete summary of slow steaming by ship source is shown in Appendix D.

Idle Time

During Desert Shield, idle time was also a significant factor in the underutilization of ships. Ships lost a projected 1,600 of the available 20,700 available days, costing about $20.3 million, because of ship repairs, off-hire time, and time awaiting orders. The RRF experienced a disappropriate share of idle time compared to other Government controlled ships. The RRF accounted for about 5,600 (27 percent) of the 20,700 available days, but experienced 1,145 (73 percent) of the 1,600 total idle days. Idle time causes cargoes to be delayed and DoD to pay for ships not moving cargo.

To identify idle time, we reviewed voyage data at MSC headquarters, MSC area commands, MTMC port activities, transportation terminal units, and the Army's 7th Transportation Group. We determined when the ships were not sailing or engaged in cargo operations and identified the amount of the idle time.

We estimated the cost by multiplying identified idle time by the operating charter rate for the ships.

Ship repairs. DoD cargos were delayed by a projected 382 days, costing about $7.5 million, because of ship repairs. Mechanical failures are to be expected in any military operation. A total of 73 days of minor failures were experienced by FSS, PREPO, and commercial U.S. and foreign flag ships during Desert Shield. During the delays, the operators were not put in an off-hire status and payments to ship operators were not reduced because most of the delays were of limited duration. The RRF experienced significantly higher repair delays. The RRF ships accounted for a projected 309 (81 percent) days of repair delays, at a cost of $6.2 million. For example, the Meteor, a RRF RORO ship since 1985, had never been exercised. Among the first RRF ships activated for Desert Shield, the Meteor had mechanical failures on three occasions for a total of 31 days of delay. These repetitive repair delays for the RRF ships when viewed collectively caused significant lost sealift capability. The following table shows ship repairs by source of ship.

PROJECTED SHIP REPAIR TIME DURING OPERATION DESERT SHIELD

	Ship Repair Time	
Government Controlled	Days	Cost ($000)
Fast Sealift	22	209
Common User	0	0
Prepositioned	29	527
Ready Reserve Force	309	6,194
Total Government	360	6,930
Commercial		
United States	17	399
Foreign Flag		
Donated	0	0
Chartered	5	139
Total Commercial	22	538
Grand Total	382	7,468

Off-hire time. Off-hire time delayed DoD surge cargoes by a projected 585 days. The major cause for off-hire time was mechanical failures of the ships for more than 12 hours. Because the operators were unable to perform their contracted missions, MSC stopped paying some contractors until the ships resumed their missions. For example, the McCoral, a foreign flag breakbulk ship, was put off-hire for 12 days because the crew refused to

enter the Persian Gulf. When a replacement crew was put aboard and the ship resumed its voyage, MSC returned it to hire status. MSC deducted $112,700 from payments to the contractor. This saved DoD money, but the surge cargo was delayed. In some instances, the operators were paid even though MSC attempted to put the operators in an off-hire status. MSC could not unilaterally put RRF ships off-hire because the contracts were awarded and administered by DOT.

The Washington was an example of a RRF ship that MSC attempted to put off-hire. The Washington was a breakbulk ship, which had been in the RRF since 1977 and had been activated five times. The Washington broke down in the vicinity of Rota, Spain, on its first voyage to Southwest Asia. MSC had to transload its cargo to other ships. MSC recommended that DOT put the ship off-hire for 22 days. DOT disagreed with MSC and did not put the ship operator off-hire. The following table shows projected off-hire time by ship source.

PROJECTED OFF-HIRE TIME DURING OPERATION DESERT SHIELD

	Off-Hire Time	
	Days	Cost ($000)
Government Controlled		
Fast Sealift	0	0
Common User	5	0
Prepositioned	34	0
Ready Reserve Force	448	9,010*
Total Government	487	9,010
Commercial		
United States	7	0
Foreign Flag		
Donated	0	0
Chartered	91	0
Total Commercial	98	0
Grand Total	585	9,010

* DoD and DOT are in dispute over off-hire time for the RRF ships.

RRF contracts have off-hire provisions, but DOT disagreed with MSC's off-hire recommendations. DOT believed that if the ships were put off-hire, it could lose access to the crews. It was also concerned that if MSC, as DoD's agent for the RRF, put a RRF ship off-hire, DoD would not reimburse DOT for the ship's operating expenses. Only DOT, as contracting officer, had the authority to withhold payments to the operators. Without authority to put ships off-hire, DoD was required to pay for unused lift. The Memorandum of Agreement between DoD and DOT on

the RRF and DOT contracts did not provide DoD the authority to control ship off-hire decisions. This problem needs to be resolved before future use of the RRF by DoD.

Awaiting orders. Ships were awaiting orders because movement requirements were not clearly defined and data support systems could not meet the potential demands of Desert Shield. Awaiting orders time resulted in a projected 611 lost sail days, at a cost of about $12.8 million.

For example, the Cape Flattery, a RRF barge carrier, sat anchored in Norfolk, Virginia, for about 29 days in November 1990 awaiting orders. At the end of November 1990, it was ordered to carry ammunition from North Carolina to Southwest Asia. The following table shows the time ships spent awaiting orders.

PROJECTED AWAITING ORDERS TIME DURING OPERATION DESERT SHIELD

	Awaiting Orders Time	
	Days	Cost ($000)
Government Controlled		
Fast Sealift	0	0
Common User	0	0
Prepositioned	87	1,840
Ready Reserve Force	388	7,773
Total Government	475	9,613
Commercial		
U.S.	90	2,807
Foreign Flag		
Donated	3	0
Chartered	43	373
Total Commercial	136	3,180
Grand Total	611	12,793

European lift. Because of the uncertainty of when specific cargo was to be moved from Europe, MSC prepositioned ships in Europe (for example, Rota, Spain) in anticipation of moving U.S. Armed Forces out of Europe to support Desert Shield. The amount of idle time that occurred by prepositioning ships may have been unavoidable. The decision to move cargo from Europe was not made early in the operation. Further, an intertheater movement was not a planned contingency for European forces and specific cargo movement requirements were not clearly defined. MSC lost a projected 112 sail days at a cost of $2.6 million by

prepositioning ships off of Europe out of the total projected 611 days of awaiting orders delays costing about $12.8 million.

Movement requirements. Inaccurate sealift movement requirements provided to TRANSCOM directly affected MSC's ability to effectively and efficiently schedule, contract, and use ships in Desert Shield. Movement requirements are details of the force to be moved (square footage, weight, hazardousness of cargo, origination port, and delivery deadline). The requirements impact scheduling and contracting because they determine what type ship is needed, when the ship is needed and where the ship will be loaded and unloaded. Movement requirements data to support unit moves are maintained in the JOPES.

JOPES, although not fully operational, was used with disappointing results during Desert Shield. In peacetime, JOPES was not generally used to determine transportation requirements. Command personnel in Europe informed us that JOPES used outdated equipment and software, which was not user friendly. Few personnel in the field were trained or experienced with the system. Movement of European forces to support Desert Shield had not been previously planned. Movement requirements for prepositioned material configured to unit sets also had to be entered into JOPES. Few personnel, such as the reservists used to augment units during Desert Shield, had the security clearances required to use JOPES. When the system was used in Desert Shield, inaccurate data were entered into the system. To illustrate, sealift requirements for the deployment of the U.S. Army, Europe, radically shifted between 6.2 million and 14 million square feet and finally totaled 8.2 million square feet.

Monitoring ship movements. MSC was hampered in monitoring ship movements because the peacetime tracking system, Voyage Information Planning and Analysis System, was not able to process classified data. MSC and its subordinate commands developed classified individual spreadsheets to track ships. These spreadsheets were not designed to have the same level of detail as the peacetime tracking system; therefore, MSC personnel were unable to promptly and accurately monitor ship movements. This created difficulties in monitoring ship performance, thus hampered MSC's identifying and enforcing the slow steaming provisions of contracts and monitoring ships' idle time. To overcome the weaknesses of JOPES and the Voyage Information Planning and Analysis System, TRANSCOM needs to develop an integrated system to process requirements data and monitor ship movements. Without such data, TRANSCOM cannot accurately determine the type and number of ships needed. TRANSCOM will have difficulty in the timely monitoring of ship movements and determining when sealift requirements will be satisfied.

In summary, once activated, the RRF was primarily responsible for the majority of the slow steaming and idle time of vessels supporting Desert Shield. The RRF accounted for about 1,600 lost

sail days costing about $32.4 million. The RRF was the major Government-owned sealift to meet contingencies, but its poor performance seriously affected the ability of U.S.-owned sealift to meet the movement requirements of Desert Shield.

RECOMMENDATIONS FOR CORRECTIVE ACTION

1. We recommend that the Assistant Secretary of Defense (Production and Logistics), in coordination with appropriate Department of Defense offices, negotiate with the Department of Transportation to revise the Memorandum of Agreement between the Department of Defense and the Department of Transportation to:

a. Require contracts for Ready Reserve Force ships to include steaming speeds and provide for payment deductions when slow steaming occurs.

b. Designate the Military Sealift Command as the administrative contracting officer when Ready Reserve Force ships are under the Military Sealift Command's operational control to give the Military Sealift Command the authority to make payment deductions for slow steaming and off-hire time.

2. We recommend that the Commander, Military Sealift Command, include provisions in contracts with ship operators of the Fast Sealift Ships and Maritime Prepositioning Ships to establish steaming speeds and to make payment deductions when slow steaming occurs.

3. We recommend that the Commander in Chief, U.S. Transportation Command, develop a single system that is capable of identifying the amount of Department of Defense cargo requiring sealift for forces designated by the Joint Chiefs of Staff for deployment and tracking ship movements in either peacetime or wartime.

MANAGEMENT COMMENTS

The Assistant Secretary of Defense (Production and Logistics) nonconcurred with draft report Recommendations B.1.a. and B.1.b. Although the Assistant Secretary agreed that the Memorandum of Agreement between DoD and DOT should be revised, he did not agree that it should be revised to include contract provisions for slow steaming and off-hire penalties or that MSC be designated as the administrative contracting officer. He stated that slow steaming penalty could only work if DoD provides all the resources necessary for the ship managers to correct the identified deficiencies. Similarly, use of the off-hire clauses will not work because it would be difficult to hold ship managers accountable and liable for the performance of a ship for which they do not have complete control. He stated that DOT should develop clear definitions for nonperformance and associated

compensation and incorporate those provisions into the ship manager contracts.

TRANSCOM and the Navy provided unsolicited comments to Recommendation B.1.a. TRANSCOM partially concurred with Recommendation B.1.a. TRANSCOM concurred with the need for DoD and DOT to revise the Memorandum of Agreement. However, TRANSCOM nonconcurred with the need for DOT to include enforceable provisions in its contracts for steaming speeds because it is not always practical.

TRANSCOM stated that DOT contracts for operation of RRF ships should set forth clearly defined performance work statements, and payments should be linked to the established performance requirements in the contracts. The Assistant Secretary of the Navy (Research, Development and Acquisition) nonconcurred with Recommendation B.1.a. and his comments were similar to those provided by TRANSCOM.

TRANSCOM nonconcurred with Recommendation B.2. TRANSCOM stated that ship operators should not automatically operate at top speed because of potential performance problems. TRANSCOM also stated that speed decisions should be the responsibility of the operational commander. The Navy provided similar comments to Recommendation B.2.

TRANSCOM concurred with Recommendation B.3., and commented that it is the lead agency in developing a Global Transportation Network (GTN) to correct the problem of inadequate intransit visibility of cargo and personnel. MSC, as the lead agency, is correcting the problem of the Integrated Vessel Information and Planning System. A GTN will provide transportation data to JOPES and a classified interface between JOPES and the Integrated Vessel Information and Planning System. A GTN is being developed in stages and scheduled to be completed by the first quarter of FY 1994.

AUDIT RESPONSE

Comments by the Assistant Secretary of Defense (Production and Logistics) are considered nonresponsive to the intent of draft report Recommendation B.1.a. The Assistant Secretary did focus on our fundamental issue of the need to hold operators of RRF ships accountable and liable for their performance. We agree that the Memorandum of Agreement does not need to include contract provisions for steaming speeds for RRF ships. Therefore, we have revised the recommendation to state that the Memorandum of Agreement between DoD and DOT require contracts for RRF ships to include steaming speeds and provide for payment deductions when slow steaming occurs.

Our audit disclosed that slow steaming significantly decreased the performance of the RRF. Cargoes to Southwest Asia were delayed because the RRF ships accounted for a projected

34 percent of the total slow steaming time during Desert Shield. This nonproductive time caused CENTCOM to unnecessarily await urgently needed military cargoes. In our slow steaming calculations for the RRF ships, we used the average sustained speed in MSC's ship register. Ship operators should be held accountable for maintaining specified steaming speeds.

Ship operators may be forced to prepare casualty reports and make necessary repairs due to the poor mechanical condition of the ships. However, prior funding constraints for RRF ship maintenance does not preclude the RRF ship operators from being penalized for their poor performance. The ship operator is contracted to perform a service regardless of who owns or has control of the ship. Control of the ship steaming time is a critical element in the services provided by the ship operators, and they should be held accountable for their performance of this element.

When MSC cannot get adequate justification for slow steaming, MSC needs to have the ability to make payment deductions, which is the practice for commercial ship operators. Under current procedures, the ship operator of an RRF ship is not being penalized for slow steaming. In effect, this gives ship operators an incentive to slow steam. The more time the ship takes to accomplish its voyage the more costs the operator can bill the Government. We, therefore, request that the Assistant Secretary of Defense (Production and Logistics), provide further comments to revised Recommendation B.1.a.

We consider the Assistant Secretary's comments to Recommendation B.1.b. nonresponsive. The difficulty is that after activation, RRF ships have two managers to support DoD missions. DoD is responsible for managing ship operations after the ships are activated. However, contractual control is never turned over to DoD because DOT contracts with the RRF ship operators even though DoD funds the costs.

To enforce RRF contract provisions, personnel responsible for monitoring ship operations need to have the authority to make payment deductions for ship operators' poor performance. The lack of contract provisions and administrative contracting authority to make payment deductions for slow steaming and off-hire time precluded MSC from enforcing payment deductions from RRF ship operators for poor performance even though DoD provides DOT the funds to pay RRF ship operators. This can impact the ability of DoD to accomplish its mission. Until DoD can adequately maintain control of the operations of RRF ships, the planned expansion and repairs of the RRF at a cost of $234 million could prove of limited value to DoD. We, therefore, request that the Assistant Secretary of Defense (Production and Logistics), reconsider his position and provide additional comments to Recommendation B.1.b.

TRANSCOM's comments to Recommendation B.2. were nonresponsive. Recommendation B.2. did not state that ships should operate at top speed nor that top speed should be required in ship contracts. Provisions should be included in contracts with ship operators of the fast sealift and maritime prepositioning ships to establish steaming speeds and to allow for payment deductions when slow steaming occurs. In our sample calculations for slow steaming, we allowed 10 percent of additional sailing time for unforeseen difficulties, and also allowed time for documented delays, such as bad weather. Even with these allowances, we projected that 16 percent of the total slow steaming time during Desert Shield was attributable to these fast sealift and maritime prepositioning ships.

We see no reason why ship operators of fast sealift and maritime prepositioning ships should not be held accountable and liable for their performance. These ship operators should be required to meet performance requirements similar to those required of ships chartered commercially by DoD. For one of our seven U.S. commercially chartered sample ships, MSC deducted about $70,900 for slow steaming. It used the same calculation method we used but with less generous allowances. We, therefore, request that TRANSCOM, reconsider its position and provide additional comments to Recommendation B.2.

The planned actions taken by TRANSCOM, are responsive to Recommendation B.3., and no further comments are required.

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C. FINANCIAL CONTROLS

MSC did not always take deductions from payments to contractors when ships were placed in an off-hire status during Desert Shield. This occurred because MSC did not have effective internal controls to ensure that off-hire deductions, approved by MSC contracting officers, were made by personnel responsible for certifying and disbursing payments to contractors. As a result, MSC overpaid contractors operating DoD-controlled ships an estimated $392,000.

DISCUSSION OF DETAILS

Background

Most MSC contracts for DoD-controlled ships (FSS, common user and PREPO ships) contain standard provisions for off-hire when ships are unable to perform their missions. During periods of off-hire, MSC is to stop the daily operating charter rate.

MSC Operations Directorate used ship traffic messages and casualty reports to monitor ship movements and performance. Commander, Military Sealift Command Instruction 3123.5, "MSC Movement Report Instructions," January 10, 1985, sets forth the policies and procedures for reporting the movement of ships under operational control of MSC. The instruction states that ship operators are required to send periodic traffic messages on the ship's operational status to MSC.

Commander, Military Sealift Command Instruction 3121.9, "Operations: Casualties and Accidents," May 9, 1988, requires ship operators to send prompt casualty reports to MSC on each occurrence of equipment malfunction, substantial weather damage, or any malfunction that affects the ship's ability to accomplish its mission. MSC Operations Directorate uses the ship message traffic and casualty reports as sources of information to establish whether off-hire action is required. When an off-hire action is required, the Operations Directorate prepares a "Red Flag Report" recommending that the contracting officer place the ship in an off-hire status.

The terms of the applicable ship contract and overall circumstances will determine whether off-hire action is warranted. The Federal Acquisition Regulation 1.602 authorizes contracting officers to enter into, administer, or terminate contracts and make related determinations and findings. The Federal Acquisition Regulation also states that contracting officers are responsible for ensuring compliance with the terms of the contract. Thus, the contracting officer is authorized to direct the withholding of payments to ship operators for off-hire time in accordance with off-hire contract provisions. If the

contracting officer within MSC concurs with the off-hire recommendation by the MSC Operations Directorate, the contracting officer places the ship off-hire by notifying the ship operator.

Additionally, in accordance with MSC procedures, the contracting officer notifies the Payment Certification and Disbursing Directorate to withhold payment. The Payment Certification and Disbursing Directorate of MSC has internal procedures which require that contract invoices be verified against the contract, approved by the contracting officer, and applicable deductions made before payment.

Off-Hire Time

MSC did not have effective internal control procedures over deductions from payments to contractors of DoD controlled ships for off-hire time. The contracting officers produced monthly off-hire listings and distributed them to MSC Directorates. Although the contracting officers placed ships off-hire based on the Operations Directorate recommendations, deductions for off-hire time were not always made by the Payment Certification and Disbursing Directorate. Additionally, contracting officers did not take follow-up actions to ensure that deductions for off-hire were made on DoD-controlled ships.

During Desert Shield, MSC recommended that 20 of 80 ships included in our sample be placed off-hire for approximately 260 days at a cost of about $5.1 million. Of the 20 sample ships recommended to be placed off-hire, 4 ships were DoD controlled. These four DoD-controlled ships were recommended to be placed in an off-hire status due to major repairs. A summary of the approved off-hire time for these ships follows.

APPROVED OFF-HIRE TIME FOR SAMPLE DOD CONTROLLED SHIPS

Ship Name	Off-Hire	Hours	Cost
American Kestrel	Oct. 30 - Oct. 31, 1990	48	$ 31,000
1LT Bonnyman	Aug. 29 - Aug. 31, 1990	38	47,000
Green Ridge	Oct. 29 - Oct. 30, 1990	39	23,000
1LT Lopez	Sept. 19 - Sept. 21, 1990	50	54,000
1LT Lopez	Sept. 29 - Oct. 2, 1990	77	83,000
1LT Lopez	Dec. 22 - Dec. 28, 1990	136	149,000
Total		388	$387,000

Off-Hire Deductions

MSC paid ship contractors for off-hire time that should have been deducted. A review of the payment invoices revealed that of the $387,000 of approved off-hire deductions, ship operators actually

received $196,000 of approved deductions. This represented 174 hours of the 388 approved off-hire time.

For example, on September 28, 1990, the Operations Directorate recommended that the Bonnyman, be placed off-hire for 38 hours at a cost of $47,000. The contracting officer concurred with the recommendation and notified the contractor on October 24, 1990. Notification was sent to the Payment Certification and Disbursing Directorate on October 24, 1990, and November 19, 1990. However, the Payment Certification and Disbursing Directorate did not deduct the $47,000 from the payments. The contracting officer did not approve the invoice for payment. The contracting officer closed the file on November 19, 1990, without requesting or receiving notification from the Payment Certification and Disbursing Directorate that the deduction was made.

Within our sample of 80 ships we reviewed payments made to the operators of the 16 DoD-controlled ships used during Desert Shield. MSC overpaid contractors $196,000 for 4 of the 16 sample DoD controlled ships reviewed. The overpayments occurred primarily because MSC did not have effective internal controls over payment deductions. If similar conditions existed on the remaining 16 DoD controlled ships used during Desert Shield, that were not in our sample, MSC could have paid a total of about $392,000 in overpayments to ship operators during Desert Shield.

RECOMMENDATIONS FOR CORRECTIVE ACTION

We recommend that the Commander, Military Sealift Command:

1. Establish controls that require the Payment Certification and Disbursing Directorate to ensure that off-hire deductions, approved by contracting officers, are taken. Additionally, require the contracting officer to validate that the off-hire deductions are taken before contract files are closed.

2. Recoup the $196,000 in identified overpayments to operators of Government ships controlled by Military Sealift Command during Operation Desert Shield. Additionally, review other payments to operators of ships used during Operation Desert Shield for similar overpayments.

MANAGEMENT COMMENTS

TRANSCOM, concurred with Recommendation C.1., and stated that MSC has improved its controls to ensure that off-hire deductions, approved by contracting officers, are taken and validated before contract files are closed.

TRANSCOM partially concurred with Recommendation C.2. TRANSCOM stated that the estimated $392,000 in overpayments was an extrapolation of potential overpayments based on our sample results and that MSC could only deduct actual overpayments. TRANSCOM stated that MSC has recouped the $196,000 in overpayments to operators of Government ships identified during the audit. Additionally, MSC initiated a review for other potential overpayments for ships used during Desert Shield.

The Assistant Secretary of the Navy (Research, Development, and Acquisition) provided unsolicited responses to Recommendations C.1. and C.2. The Assistant Secretary's comments were very similar to the comments received from TRANSCOM.

AUDIT RESPONSE

The actions taken by Military Sealift Command are responsive to Recommendation C.1., and no further response is necessary.

TRANSCOM's comments are considered responsive to Recommendation C.2., which we revised to recommend that Military Sealift Command recoup the $196,000 in identified overpayments instead of the estimated $392,000 in overpayments. We request, however, that, during the course of followup by the Assistant Inspector General (Analysis and Followup), MSC report the actual recoupments achieved for ships that were not in our sample.

D. PORT TIME

MTMC did not develop planning estimates of the total time needed to move ships through ports during Desert Shield. This occurred because MTMC limited its planning estimates to the amount of time needed to load a ship. Other factors, such as pilot time, lay time, bunkering, clearance, and administrative time were not included. Further, estimates of the time needed to load cargo ships were inaccurate in 68 percent of the port stops reviewed. Overall, non-ammunition ships spent an average of 39 percent more time in port than anticipated, while ammunition ships spent an average of 53 percent more time. As a result, the movement of cargo to the overseas theater was delayed and the operational commander could not accurately plan and coordinate arrival of unit cargo.

DISCUSSION OF DETAILS

Background

MTMC Transportation Engineering Agency provides planning estimates for transportation factors used for mobilizing, deploying, and sustaining U.S. Armed Forces worldwide. One type of estimate that the MTMC Transportation Engineering Agency provides is load and unload times for different types of ships. The estimates are developed based on past experiences, exercises, and studies and are included in MTMC Transportation Engineering Agency Pamphlet 700-2, "Logistics Handbook for Strategic Mobility Planning," August 1989. CENTCOM and TRANSCOM used ship loading estimates published in the pamphlet to estimate the time needed to move ships through ports.

Planning for Events Other Than Loading

MTMC's Transportation Engineering Agency did not develop planning estimates that included all factors in a ship's port time. MTMC included the time needed to load ships, but excluded other factors such as pilot time (time to pilot the ship to and from berth), lay time (time at berth in idle status), repairs, equipment failures, clearance and administrative time, weather delays, and labor delays. Our review of 110 port stops at 16 ports where cargo was loaded showed that factors, such as those noted above, comprised about 39 percent of the average port time. We considered port time to be the period from the time the pilot boards the ship entering port to the time the pilot leaves the ship exiting the port.

For example, the United States Navy Ship Capella stopped at the Port of Houston in September 1990. The ship was in port for 64 hours. Of the total time in port, crews took 43 (67 percent) hours to load cargo. The remaining 21 (33 percent) hours were attributable to the following factors: 8 hours for weather

delays, about 7.5 hours to pilot the ship to and from berth, 4 hours for clearance and administrative functions, 1 hour for labor delays, and about .5 hours for repairs. When viewed individually, these events may not appear significant; however, when viewed collectively, they represent a significant amount of port time.

Inaccurate ship loading estimates and the lack of separate port time estimates for ammunition further limited the operational commanders ability to plan and coordinate arrival of cargo in theater. Events varied by port, but the overall average for events other than loading, represents approximately a day and a half of additional time in port. This additional time delayed the arrival of cargo in Saudi Arabia. See Appendix E for a summary of our analysis of port time. The analysis breaks down the average port time into loading time and time in port for factors other than loading.

Accuracy of Ship Loading Estimates

Planned loading times did not accurately reflect the actual loading times for all types of ships used in Desert Shield. Although the overall planned and actual loading times were about equal, differences between planned and actual loading times varied widely by ship type. Estimates of port time needed to load ships were inaccurate in 68 percent of the loading stops reviewed. We considered loading times to be inaccurate only when the actual loading time of a ship was 25 percent or more greater than or less than the planned loading times per MTMC Transportation Engineering Agency Pamphlet 700-2.

As part of our review of 80 ships, we compared the planned to the actual average loading time for nine types of ships that made 110 stops at 16 ports. Planned loading time ranged from 25 percent to 279 percent of the actual average loading time. For example, the 24 hour planned loading time for RORO ships accounted for only 58 percent of the actual average loading time. Conversely, the 96 hours planned for the loading of breakbulk ships was 21 percent greater than the average 79 hours actually needed. Of the 110 loading stops, 73 percent involved either breakbulk or RORO ships. Estimates of the time required to load other types of ships were also inaccurate. Because loading time accounts for the majority of the time that ships are in port, accurate loading times are essential for accurate port time planning estimates. See Appendix F for a summary of our analysis of loading time. This analysis compares the planned loading time to the actual average loading time for each type of ship in our sample.

Ammunition Port Time

Port time to process ammunition ships at the Military Ocean Terminal, Sunny Point, North Carolina, took even longer than the port time of dry cargo ships because of the unique

characteristics of ammunition and the limitation of port facilities. MTMC did not develop specialized planning estimates for the loading of ammunitions. Accurate estimates of loading time and other events that affect the time a ship is in port to load ammunition is important to effectively plan and coordinate the arrival of cargo in theater.

Loading. Sunny Point was responsible for loading approximately 65 percent of all ammunition moved from the Continental United States to Southwest Asia during Desert Shield. We reviewed seven port stops at Sunny Point and found that the average planned loading estimates covered only 75 percent of the average actual loading time. In addition, loading time comprised only 47 percent of the total port time. The remaining 53 percent represented events other than loading, such as inaccessibility of port facilities, weather, bunkering (obtaining fuel), ship maintenance, and command delays. For example, the lighter aboard ship, Green Island, arrived at Sunny Point on November 1, 1990. The ship remained in port for 865 hours. Of the total time in port, crews took 343 hours (40 percent) to load ammunition. The remaining 522 hours (60 percent) was attributable to the following: 364 hours awaiting cargo and 158 hours due to inadequate port facilities.

Port facilities. Facilities for loading ammunition ships were inadequate because the channel to Sunny Point was not deep enough to accommodate a fully loaded lighter aboard ship. The channel to Sunny Point was only 34 feet, which was not sufficient to handle lighter aboard ships that require at least 36 feet when fully loaded. This made it necessary to partially load these ships at berth then move them to the sea buoy to complete loading. Loading at the sea buoy resulted in additional port time because loading operations were slower and more susceptible to weather delays. Additional time was also required to load cargo onto another ship at berth, transport the cargo to the sea buoy, and off-load the cargo to the waiting ship.

Although the loading of ammunition requires consideration of numerous factors such as safety, security, and storage limitations, MTMC's planned estimates were the same as those for dry cargo. Further, the loading of noncontainerized cargo onto ships that cannot be completely loaded at berth further complicates loading operations. Because loading time accounts for a major portion of the overall port times, accurate planning estimates for ammunition that take into consideration the unique loading factors peculiar to ammunition and the type of ship are essential for accurate port time planning estimates. MTMC must also include the events that affect the loading of ammunition while in port such as port facilities. See Appendix G for a summary of our analysis of port time at Sunny Point and Appendix H for an analysis of loading time at Sunny Point.

RECOMMENDATIONS FOR CORRECTIVE ACTIONS

We recommend that the Commander, Military Traffic Management Command:

1. Develop and include in the Military Traffic Management Command Transportation Engineering Agency Pamphlet 700-2, an overall planning estimate of the amount of time needed to move dry cargo ships through ports. This overall estimate of port time should include:

a. An estimate, by type of ship, of the time needed to load cargo adjusted to reflect experience gained during Operation Desert Shield and

b. A composite factor reflecting the average time consumed by events in port other than loading.

2. Develop and include in the Military Traffic Management Command Transportation Engineering Agency Pamphlet 700-2, a separate planning estimate of the amount of time needed to move ammunition ships through ports. This overall estimate of port time should include:

a. An estimate, by type of ship, of the time needed to load cargo adjusted to reflect experience gained during Operation Desert Shield and

b. A composite factor reflecting the average time consumed by events in port other than loading.

MANAGEMENT COMMENT

TRANSCOM concurred with Recommendations D.1.a., D.1.b., D.2.a., and D.2.b. The publication will be revised and distributed by September 30, 1992.

AUDIT RESPONSE TO MANAGEMENT COMMENTS

We consider TRANSCOM's comments and proposed action on Recommendations D.1.a., D.1.b., D.2.a., and D.2.b. responsive.

E. IN TRANSIT ACCOUNTABILITY

Cargo off-loaded from ships at the major SPOD was not effectively reconciled with cargo manifests prepared when ships were loaded at the SPOE. Discrepancies shown on the cargo outturn reconciliation messages were not resolved and reported to the applicable SPOE. This occurred because MTMC did not have managerial authority for overall port operations at both the SPOEs and the SPODs; therefore, cargo manifests from the SPOEs were not always available at the SPOD before the ship was off-loaded and cargo accountability at the SPOD was given less emphasis. Further, the Logistics Application of Automated Marking and Reading Symbology (LOGMARS) computer hardware was not reliable and did not have sufficient memory capacity to handle the volume of cargo that was off-loaded. Therefore, accurate cargo reconciliations at the SPOD were not performed. As a result, overall accountability was lost and DoD was not assured that all the cargo shipped to Southwest Asia was off-loaded at the SPOD.

DISCUSSION OF DETAILS

Background

Intransit accountability of cargo moved by ship requires that a manifest of cargo loaded at the SPOE be prepared and forwarded to the SPOD. The SPOD should reconcile the cargo off-loaded to the manifest from the SPOE to determine if there are any discrepancies. During Desert Shield, MTMC and the U.S. Army 7th Transportation Group personnel used LOGMARS computer hardware and software to monitor the flow of cargo as it was loaded at the SPOE and off-loaded at the SPOD. Before loading cargo at the SPOE, cargo data were input into the LOGMARS data base. Bar coded labels were printed and affixed to the cargo. Portable bar code readers were used to scan the labels and inventory the cargo as the cargo was loaded onto the ship. Likewise, portable bar code readers were used to inventory cargo as the cargo was off-loaded at the SPOD. The data were then down-loaded into a LOGMARS data base and matched to the manifest data from the SPOE to produce a Cargo Outturn Reconciliation Message (CORM), which showed discrepancies between cargo loaded at the SPOE and cargo off-loaded at the SPOD. Discrepancies should be resolved by SPOD personnel or reported back to the SPOE for further action.

MTMC Regulation 56-69, "Terminal Operations," August 15, 1989, assigns MTMC the responsibility to maintain visibility and control over the shipment of DoD cargo. During Desert Shield, MTMC generally had operating authority over the SPOEs, while the U.S. Army 7th Transportation Group, Fort Eustis, Virginia, had operating authority over the major SPOD in Southwest Asia. Therefore, close coordination between MTMC and the

7th Transportation Group was needed to maintain accountability over the cargo.

We visited 10 SPOEs and 2 SPODs and reviewed the accountability controls over cargo shipped to Southwest Asia. Our review covered the period from cargo loading at the SPOE to cargo off-loading at the SPOD.

Cargo Reconciliations

Through discussions with management personnel, we found that complete and accurate cargo reconciliations generally were not performed and CORMs were not forwarded to the SPOE as required. Of the 65 sample ships off-loaded at Ad Dammam, Saudi Arabia, we located 11 CORMs. CORMs for the other sample vessels were either not prepared or not readily available during our review. All 11 CORMs indicated significant discrepancies; however, there was no indication that the discrepancies were resolved or reported to the applicable SPOE. For example, the Altair (Voyage No. 8055) was off-loaded at Ad Dammam and the CORM showed that 1,015 pieces of cargo had been manifested at the SPOE, but only 940 pieces were off loaded. The CORM also showed that 93 pieces of the 1,015 pieces manifested were not off-loaded, and that 18 pieces were off-loaded but not manifested, which amounts to a net shortage of 75 pieces. See Appendix I for a summary of discrepancies shown on the 11 CORMs that were available for our review. Discrepancies involved general cargo, vehicles, and ammunition. We could not determine whether the discrepancies on the CORMs were actual cargo losses or the result of an inventorying error. However, there were no records in the SPOD files that indicated whether these discrepancies were resolved or reported to the applicable SPOE for further action. Reconciliations were not performed because manifests from the SPOE were not always received before the ship was off-loaded; or the LOGMARs equipment was not sufficient to handle the volume of cargo being off-loaded at the SPOD.

Cargo manifests. According to SPOD personnel, manifests from the SPOEs were not always received before the ship was off-loaded. SPOD personnel stated that approximately 25 percent of the manifests were not received before ship arrivals because they had been either misdirected or not promptly forwarded through channels within the Southwest Asia theater. As a result, prompt inventory reconciliations could not be made; and overall accountability over the cargo arriving at the SPODs was lost. However, MTMC maintains that cargo manifests were provided to the SPODs in a timely manner, but cargo reconciliations and accountability was not emphasized. MTMC did not have the operational authority to direct the U.S. Army 7th Transportation Group to perform the needed reconciliations. As a result, accountability over DoD cargo was less than satisfactory during Desert Shield.

LOGMARS equipment. Reconciling cargo was hampered further because of unreliable and insufficient LOGMARS equipment. Portable bar code readers frequently malfunctioned because of the extreme heat, and the bright sunlight often made the screens difficult to read. In addition, the memory capacity of the portable bar code readers could store only approximately 5,000 records, which required frequent down loading in the LOGMARS. Down loading this data was very time consuming and since cargo off-loading had to continue, all equipment off-loaded was not always recorded, which created discrepancies on the CORMs. Therefore, SPOD personnel had to rely on the field units to account for their own cargo. However, no unit reconciliations were reported to the SPOD or applicable SPOE. As a result, MTMC was not sure that all cargo loaded at the SPOEs was off-loaded at the SPOD.

RECOMMENDATIONS FOR CORRECTIVE ACTION

1. We recommend that the Commander in Chief, U.S. Transportation Command, develop an agreement with the Commander in Chief, U.S. Central Command providing the Military Traffic Management Command the authority to establish controls that would ensure intransit accountability over DoD cargo during a deployment. This agreement should include controls to ensure that:

a. Cargo manifests from the seaport of embarkation arrive at the seaport of debarkation prompt enough to perform a reconciliation of cargo off-loaded.

b. The seaport of debarkation personnel reconcile cargo off-loaded with the manifests from the seaport of embarkation and send reconciliation messages containing unresolved discrepancies to the applicable seaport of embarkation to identify shortages and to take further follow-up action.

2. We recommend that the Commander in Chief, U.S. Transportation Command, upgrade the hardware capabilities of the Logistics Application of Automated Marking and Reading Symbology computer hardware to accommodate a similar volume of cargo as that moved in Operation Desert Shield at both the seaport of embarkation and the seaport of debarkation.

MANAGEMENT COMMENTS

TRANSCOM concurred with Recommendations E.1.a. and E.1.b. and stated that proposed language addressing MTMC's responsibility for terminal operations within the CENTCOM area of responsibility is being staffed and will be incorporated into a command arrangements agreement between TRANSCOM and CENTCOM. The anticipated completion date of this agreement is October 1, 1992. This agreement should eliminate similar command and control problems that were experienced during Desert Shield and Desert Storm and ensure that a single organization has the responsibility or authority for port operations and in transit accountability of DoD cargo during deployment. However, TRANSCOM stated that this corrective action would not eliminate the operational problems, such as inadequate communications support and hardware deficiencies that contributed to the delays in receiving the cargo manifest data at the seaport of debarkation.

TRANSCOM partially concurred with Recommendation E.2. TRANSCOM supports the intent of the recommendation to have adequate hardware capabilities to support the LOGMARS regardless of environment, but does not agree that TRANSCOM should provide the upgraded hardware. TRANSCOM stated that it is the Services' responsibility to train and equip their organizations for operations such as Desert Shield. TRANSCOM also stated that the Worldwide Port System, under development by MTMC and planned for fielding in 1993, will replace existing hardware and software used for cargo documentation and provide transportation data to the GTN in support of cargo in transit visibility. The fielding of the new system will eliminate the data volume problems experienced during Desert Shield and Desert Storm.

AUDIT RESPONSE

We consider TRANSCOM's comments and proposed action on Recommendations E.1.a. and E.1.b. responsive. Our recommendations address the broad command and control problems caused by MTMC not having the terminal operations authority at the seaport of debarkation. We believe that after the agreement between TRANSCOM and CENTCOM clarifying MTMC's role; responsibilities; and operational authority is completed, MTMC will be able to resolve more effectively the operational problems, such as inadequate communications support and hardware deficiencies. No further management comments are required regarding these recommendations.

We consider TRANSCOM's comments on Recommendation E.2. to be responsive. We agree with the Deputy Commander that the Services' are responsible to equip their units. TRANSCOM, however, should be cognizant of the service units' capabilities to handle and account for cargo moved by ship during a deployment.

TRANSCOM stated that it is the lead agency in developing a GTN, which will correct the problems of inadequate in transit visibility of cargo. We believe the implementation of the Worldwide Port system and the integration of the Worldwide Port System with the GTN will satisfy the intent of Recommendation E.2. No further comments are required.

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PART III - ADDITIONAL INFORMATION

APPENDIX A - Sources of Sealift

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APPENDIX G - Analysis of Port Time at the Military Ocean Terminal, Sunny Point, North Carolina

APPENDIX H - Comparison of Planned Loading Time to Actual Loading Time at the Military Ocean Terminal, Sunny Point, North Carolina

APPENDIX I - Summary of Cargo Discrepancies Found on Sample Cargo Outturn Reconciliation Messages

APPENDIX J - Summary of Potential Benefits Resulting from Audit

APPENDIX K - Activities Visited or Contacted

APPENDIX L - Report Distribution

APPENDIX A. SOURCES OF SEALIFT

To satisfy Desert Shield sealift requirements, MSC could select from four general sources of sealift. Procedures for their selection vary. A brief description of each of the four sources and the procedures for obtaining these ships follows.

DoD controlled ships. There are three components of DoD controlled ships: FSS, common user ships, and PREPO ships. With the exception of PREPO, MSC has relatively ready access to DoD controlled ships.

FSS. Purchased by the Navy as used ships in the early 1980's, the eight FSS were converted to RORO configurations for rapid load, unload, and transport of Army combat equipment. The Navy is responsible for maintaining these ships in a reduced operating status, which allows them to be activated within 96 hours or less. On MSC's own initiative, it can activate these ships to respond to national emergencies.

Common user. This source consists of 11 dry cargo ships that were under charter to MSC at the start of Desert Shield for the purposes of meeting daily peacetime sealift requirements. At MSC discretion, it may divert these ships from daily peacetime missions to others of higher priority.

PREPO force. Consists of 25 ships which are fully crewed and based at various ports throughout the world. Although these ships are under charter to MSC, military theater commanders retain combatant command. There are two PREPO components that are fully loaded during peacetime and are not released to TRANSCOM combatant command until after being deployed and off-loaded.

Maritime preposition ships. This source consists of 13 ships in three squadrons that carry the equipment and supplies for 30 days of operation for three Marine Expeditionary Brigades.

Afloat prepositioned ships. This source consists of 12 ships, of which 8 are dry cargo ships and 4 are tankers. Unlike the maritime prepositioning ships, these ships are primarily loaded with supplies rather than equipment.

Commercial U.S. Flag. This source consists of about 140 ships that were not already under contract with MSC at the start of Desert Shield. MSC can immediately attempt to charter these ships, after requirements are identified. There are 85 container ships within this source. Container ships are plentiful because of their usefulness in U.S. commercial markets. However, they are not readily useful for transporting surge cargo. They may also be unavailable because of commercial contracts.

Among the U.S. flag ships are 87 dry cargo ships in the Sealift Readiness Program. Ship operators who receive operating or construction subsidies must participate in the program. The ships are to be available to MSC for involuntary charter when ocean shipping is not available at fair and reasonable charges to meet increased National Defense requirements; ships made available voluntarily through normal chartering procedures are not suitable for military sealift requirements; and ships from the National Defense Reserve Fleet cannot be made available in sufficient numbers to meet requirements. For DoD to use the ships in the program, the Secretaries of Defense and Transportation have to both agree on the need to activate the ships. The program was not used during Desert Shield.

DOT Controlled Ships. To satisfy DoD sealift requirements in a national emergency, DOT's maritime administration owns and maintains a fleet of ships called the National Defense Reserve Fleet. The National Defense Reserve Fleet has a component called the RRF. In peacetime conditions, both groups of ships are in an inactive status. Generally, these ships are not intended to be activated to compete with, substitute for, or displace commercial U.S. flag ships.

National Defense Reserve Fleet. Established in 1946, the National Defense Reserve Fleet's original purpose was to control the sale of excess Government ships. Plans call for the National Defense Reserve Fleet ships to activate within individually assigned time frames of 30 to 120 days. DOT owns and maintains the National Defense Reserve Fleet.

To obtain National Defense Reserve Fleet ships, a Presidential Declaration of National Emergency must exist. MSC advises DOT of the specific shipping requirements and the Maritime Administration activates the appropriate National Defense Reserve Fleet ships.

The GAO has reported that although U.S. sealift capabilities were strained during Desert Shield, the National Defense Reserve Fleet is no longer needed, because of the availability and capability of the other, quicker-response sealift assets, including ships in the RRF. See Appendix B for further information regarding this GAO report.

RRF. Established in 1976 to respond quickly to surge requirements, at the time of Desert Shield, the RRF was composed of 83 dry-cargo ships, 11 tankers, and 2 passenger ships. The Maritime Administration is responsible for maintaining these inactive commercial ships in 5-, 10-, or 20-day states of readiness to support deployment of military forces. Funds are appropriated to DOT under DoD fund category Code 054, other Defense Related Activities, for the cost of procurement, upgrade, maintenance, and test activations of the RRF.

To obtain RRF ships, sealift requirements must exceed the capabilities that MSC can obtain from DoD controlled sources and voluntary contracted sources (that is, commercial U.S. flag). At the time of Desert Shield, MSC had to request access to the RRF through the Chief of Naval Operations and the Secretary of the Navy. After approval, MSC coordinates with DOT to order specific RRF ships.

Commercial Foreign Flag. In general, before chartering foreign flag ships, commercial U.S. flag ships should be allowed to provide sealift services. In the event that commercial U.S. flag is not available, foreign flag shipping may be obtained. However, it is uncertain to what extent that they will be available to the United States in an emergency.

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APPENDIX B. PRIOR AUDIT AND REVIEW COVERAGE

Joint Department of Defense/Department of Transportation Ready Reserve Force Working Group Report, "The Ready Reserve Force: Enhancing a National Asset," October 1991, drew upon lessons learned from the activation of 78 of 96 RRF ships (dry cargo and tanker ships) in support of Operations Desert Shield and Desert Storm. The report recognized the significant contribution of the RRF during Operations Desert Shield and Desert Storm, but reported that a multitude of problems weakened the ability of RRF to be activated within planned time frames. Problems reported were with shortcomings related to RRF ship readiness, maintenance, operation, and lay-up, and by some issues involving shipyards and ship repair. In addition, there were difficulties in manning the RRF ships with qualified licensed and unlicensed personnel. The working group concluded that the RRF can be made fully responsive if the DoD and DOT jointly implement various changes in RRF management, shipyard and ship repair, and manning. The report presented 15 recommendations related to improving the ability of RRF to be activated within planned time frames.

DoD, Deputy Inspector General Report, "Review of Unified and Specified Command Headquarters," February 1988, reported that the layering of functions in various headquarters is, to a large extent, due to the notion that Unified Commanders must have separate and distinct Service component commands. The application of a different organizational concept to the three nongeographical commands (U.S. Space Command, U.S. Transportation Command, and U.S. Special Operations Command), to the U.S. Navy in Europe and Japan, and to the U.S. Army in Hawaii will save 2,134 staff years and help the Secretary of Defense; the Chairman, Joint Chiefs of Staff; and others to better pinpoint responsibility for both successes and failures. The report recommended that the staffing reductions be made at the component level to give more authority, control, and clear responsibility to the Unified Commander.

DoD Inspector General - Inspections Report No. 92-INS-07, "Inspection of the United States Transportation Command," January 24, 1992, reported on the economy, efficiency, and effectiveness of TRANSCOM operations and mission execution. The report had 29 recommendations related to correcting the following five issue areas: limitations on the authority of the Commander in Chief of TRANSCOM that hinder the ability to manage the DoD strategic transportation system; TRANSCOM does not have an effective process for identifying, advocating, and satisfying strategic mobility requirements; personnel structure of TRANSCOM headquarter does not effectively contribute to a joint focus on strategic transportation advocacy; command and control automated

systems used by the DoD do not efficiently support timely and reliable planning and execution of wartime transportation requirements; and problems with management of the DoD transportation industrial funds support the need for greater TRANSCOM oversight of these funds. Recommendations were made to the Secretary of Defense, three Offices of the Secretary of Defense, the Chairman of the Joint Chiefs of Staff, the Joint Staff, the Secretary of the Air Force, the Military Departments, and the Commander in Chief of TRANSCOM.

DoD Inspector General - Audit Report No. 92-068, "Civil Reserve Air Fleet," April 3, 1992, reported that although the Civil Reserve Air Fleet program proved successful during Operations Desert Shield and Desert Storm, the audit showed that opportunities exist to enhance the program's effectiveness. The report recommended that the Commander in Chief, Military Airlift Command establish procedures to provide support for airlift in emergencies less than full mobilization and to maximize aircraft utilization in satisfying high priority airlift requirements. In addition, Civil Reserve Air Fleet Enhancement Program Funds should be eliminated until the Joint Staff approves requirements.

GAO Report No. NSIAD-91-36BR, (OSD Case No. 8440), "Defense Reorganization, DoD's Efforts to Streamline the Transportation Command," October 1990, reported that the Transportation Command does not function as a fully operating unified command and should be given comparable responsibility for peacetime operations as it has in wartime. No recommendations were made.

GAO Report No. NSIAD-91-198, (OSD Case No. 8719), "Navy Contracting, Military Sealift Command Contracts for Operation Desert Shield," May 1991, reported that despite being under severe time constraints, MSC generally followed established contracting practices to obtain shipping to support Desert Shield. In addition, the GAO concluded that the prices MSC negotiated were fair and reasonable under the circumstances. No recommendations were made.

GAO Report No. NSIAD-91-283, (OSD Case No. 8818), "U.S. Transportation Command's Support to Operation Desert Shield," August 1991, reported that in terms of sheer number of personnel deployed, tons of cargo shipped, and the overall utilization and reliability of aircraft and ships, airlift and sealift can be rated a success. However, TRANSCOM's support of the deployment needs of the Central Command was not accomplished as rapidly, efficiently, and effectively as intended. TRANSCOM was hampered by a lack of an operational plan for a Desert Shield-type

contingency; agreed-upon operating procedures and lines of responsibility for a wartime situation among the command, its components, and the Services; and a fully implemented central deployment data base (that is, JOPES) with accurate and complete transportation information. No recommendations were included in this report.

GAO Report No. NSIAD-92-03, (OSD Case No. 8744A), "Strategic Sealift, Part of the National Defense Reserve Fleet is No Longer Needed," October 7, 1991, reported that although U.S. sealift capabilities were strained during Desert Shield, the non-RRF ships of the National Defense Reserve Fleet were not used. GAO concluded that these non-RRF ships were no longer needed, given the availability and capability of other, quicker-response sealift assets (including ships in RRF). The report recommended that the Maritime Administration establish managerial practices that ensure that recommendations from studies and reports related to non-RRF ships receive prompt attention; that ships are preserved and maintained and that spare parts are complete; that the Maritime Administration establish a formal plan for crewing that would include non-RRF crew requirements and periodically test the availability of crews; that the Maritime Administration maintain non-RRF ship condition information to be used as a basis for identifying specific ships for upgrade to the RRF or for scrapping; and that the Maritime Administration ensure that policies and procedures are established and followed to control the removal of needed equipment and parts before disposal of ships. The Maritime Administration concurred with all the recommendations stating that it had already been following the intent of some of the recommendations.

Department of Transportation, Inspector General Report No. AV-MA-1-012, "Report on the Audit of Maintenance of the Ready Reserve Force, Maritime Administration," February 4, 1991, reported that some maintenance practices used in the Atlantic Region were not as effective and economical as those in the Central and Western Regions. It concluded that the inconsistent maintenance practices resulted in the annual expenditure of $300,000 that could have been used for enhancing the readiness of the RRF to meet short activation time frames. The report recommended that the Maritime Administration establish uniform time frames and methods to complete inspections and minor repairs, using those in the Central and Western Regions as a guide. The Maritime Administration should additionally, establish uniform methods for the fleet to record deficiencies, foster the use of a computer system to document maintenance procedures, deficiencies, repairs completed, etc., and require fleet crews to complete minor repairs.

Department of Transportation, Inspector General Report No. AV-MA-1-034, "Audit of Activation of the Ready Reserve Force, Maritime Administration," September 5, 1991, concluded that 78 percent of the 46 RRF ships activated between August 10 and September 21, 1990, could not be activated within the prescribed readiness periods to be available to load cargo in support of Desert Shield. Crewing and mechanical problems were reported to cause the delays in activation. The report recommended that the Department of Transportation's Maritime Administration retain crews on selected RRF ships, finalize a reserve crewing study, develop a comprehensive plan to activate the RRF ships, request appropriate funding for activations, test newly acquired RRF ships, test mechanical corrections or installations before returning the ships to the fleet, and correct deficiencies promptly.

APPENDIX C. VOYAGES MADE BY SAMPLE SHIPS

Ship Number	Ship Name	Ship Type	Time Available	Desert Shield Voyages
	Government Controlled			
	Fast Sealift Ships:			
1	Altair	RORO	164 days	5
2	Bellatrix	RORO	168 days	4
3	Capella	RORO	161 days	4
4	Pollux	RORO	167 days	5
	Common User:			
5	Green Ridge	Breakbulk	139 days	2
6	Santa Adela	Breakbulk	167 days	2
7	Santa Juana	Breakbulk	158 days	6
	Preposition Force:			
	Maritime Prepositioning Ships:			
8	Baugh, PFC Wm. B.	RORO	96 days	2
9	Bonnyman, 1L. Alex	RORO	84 days	2
10	Fisher, Pvt. Harry	RORO	166 days	3
11	Kocak, Sgt. Mate J.	RORO	30 days	1
12	Lopez, 1L. Baldomero	RORO	172 days	3
13	Pless, Maj. Stephen W.	RORO	77 days	2
	Afloat Prepositioned Ships:			
14	American Kestrel	Barge	191 days	3
15	Austral Rainbow	Barge	191 days	2
16	Green Island	Barge	164 days	2
	Ready Reserve Force:			
17	California	Breakbulk	39 days	0
18	Cape Archway	Breakbulk	67 days	1
19	Cape Blanco	Breakbulk	44 days	1
20	Cape Borda	Breakbulk	151 days	3
21	Cape Bover	Breakbulk	43 days	1
22	Cape Canso	Breakbulk	32 days	1
23	Cape Carthage	Breakbulk	34 days	1
24	Cape Charles	Breakbulk	34 days	1
25	Cape Clear	Breakbulk	145 days	2

APPENDIX C. VOYAGES MADE BY SAMPLE SHIPS (cont'd.)

Ship Number	Ship Name	Ship Type	Time Available	Desert Shield Voyages
26	Cape Diamond	RORO	37 days	1
27	Cape Domingo	RORO	173 days	3
28	Cape Ducato	RORO	168 days	3
29	Cape Flattery	Barge	148 days	2
30	Cape Florida	Barge	95 days	1
31	Cape Isabel	RORO	150 days	3
32	Cape Johnson	Breakbulk	135 days	2
33	Cape Juby	Breakbulk	167 days	2
34	Cape Lobos	RORO	168 days	2
35	Cape May	Barge	146 days	1
36	Cape Nome	Breakbulk	138 days	2
37	Del Monte	Breakbulk	40 days	0
38	Gulf Banker	Breakbulk	157 days	1
39	Gulf Trader	Breakbulk	143 days	2
40	Meteor	RORO	142 days	2
41	Northern Light	Breakbulk	38 days	0
42	Santa Ana	Breakbulk	12 days	0
43	Washington	Breakbulk	138 days	1
	Commercial			
	U.S. Commercial:			
44	American Condor	RORO	128 days	3
45	Ashley Lykes	Breakbulk	116 days	3
46	Green Lake	Breakbulk	102 days	2
47	John Lykes	Breakbulk	51 days	1
48	Leslie Lykes	Breakbulk	34 days	1
49	Mallory Lykes	Breakbulk	29 days	1
50	Strong Texan	RORO	153 days	2
	Foreign Flag:			
	Donated			
51	Hanjin Jedda	Breakbulk	64 days	1
52	Hirado Maru	Breakbulk	114 days	2
53	Kubbar	Breakbulk	139 days	2

APPENDIX C. VOYAGES MADE BY SAMPLE SHIPS (cont'd.)

Ship Number	Ship Name	Ship Type	Time Available	Desert Shield Voyages
	Chartered			
54	American Shanti	Breakbulk	40 days	1
55	Apman II	Breakbulk	22 days	1
56	Arastov	Breakbulk	22 days	1
57	Arcade Falcon	RORO	57 days	1
58	Bright Skies	Breakbulk	49 days	1
59	Cape Syros	Breakbulk	27 days	1
60	Cosman I	Breakbulk	32 days	1
61	Fleming Sif	Breakbulk	33 days	1
62	Gallant II	Breakbulk	105 days	2
63	Jolly Smeraldo	RORO	163 days	3
64	Kaptan Burnhanattin	RORO	28 days	1
65	Kavo Peiratis	Breakbulk	40 days	1
66	Mangalia	Breakbulk	44 days	1
67	McCoral	Breakbulk	124 days	2
68	McJade	Breakbulk	44 days	1
69	Merchant Premier	Breakbulk	34 days	1
70	Mistra	Breakbulk	24 days	1
71	Naxos	Breakbulk	27 days	1
72	Neptune Sardonyx	Breakbulk	40 days	1
73	Pace	Breakbulk	26 days	1
74	Prince Shaul	Breakbulk	38 days	1
75	Slagen	Breakbulk	45 days	1
76	Stena Trader	RORO	26 days	1
77	Trident Endeavor	Breakbulk	36 days	1
78	Vrahos	Breakbulk	48 days	1
79	Wladyslawowo	Breakbulk	33 days	1
80	Zeron	RORO	47 days	1

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APPENDIX D. SAMPLING PROCEDURES AND AUDIT RESULTS

We identified a universe of 253 dry cargo ships that participated in Operation Desert Shield from August 2, 1990, through January 15, 1991. Our objective was to select a sample of dry cargo ships used with adequate coverage for the entire universe. The sample was stratified into six categories showing the number and type of ship as follows:

	Ship Type	Number of Ships	Sample Size
Stratum 1	Fast Sealift	8	4
Stratum 2	Common User	8	3
Stratum 3	Ready Reserve Force	55	27
Stratum 4	U.S. Commercial	24	7
Stratum 5	Foreign Flag	137	30
Stratum 6	Preposition	21	9
Total		253	80

Within each stratum, we randomly selected a sample. The resulting 80 ships had a cost of $117.2 million for 7,511 operational days. The confidence level was 90 percent with a margin for error of + 10 percent of the projected amount. The operating results of the review of the 80 sample ships and projected results follow.

APPENDIX D. SAMPLING PROCEDURES AND AUDIT RESULTS (cont'd.)

USAGE OF SAMPLE SHIPS' CAPABILITY DURING OPERATION DESERT SHIELD

Ship Class	Available Operational Capacity		Unused Capacity			Reasons for Unused Capacity			
						Slow Steaming		Idle Time	
	Days	Cost (000)	Days	Percent	Cost (000)	Days	Cost (000)	Days	Cost (000)
Government Controlled									
Fast Sealift	668	$ 6,537	72	11	$ 700	61	$ 595	11	$ 105
Common User	475	4,820	19	4	154	17	154	2	0
Preposition:									
Maritime	801	19,656	65	8	1,276	48	1,155	17	121
Afloat	536	10,222	50	9	869	9	165	41	704
Ready Reserve Force	2,774	46,354	795	29	15,920	231	4,628	564	11,292 *
Total Government	5,254	$87,589	1,001		$18,919	366	$6,697	635	$12,222
Commercial									
U.S.	662	13,804	33	5	933	0	0	33	933
Foreign Flag:									
Donated	318	0	42	13	0	41	0	1	0
Chartered	1,317	15,778	137	10	2,017	108	1,910	29	107
Total Commercial	2,257	$29,582	212		$2,950	149	$1,910	63	$1,040
Grand Total	7,511	$117,171	1,213		$21,869	515	$8,607	698	$13,262

* DoD and DOT are in dispute over $4,428,000 in off-hire costs for the RRF sample ships.

APPENDIX D. SAMPLING PROCEDURES AND AUDIT RESULTS (cont'd.)

PROJECTED USAGE OF SHIPS' CAPABILITY DURING OPERATION DESERT SHIELD

Ship Class	Available Operational Capacity		Unused Capacity			Reasons for Unused Capacity			
						Slow Steaming		Idle Time	
	Days	Cost (000)	Days	Percent	Cost (000)	Days	Cost (000)	Days	Cost (000)
Government Controlled									
Fast Sealift	1,326	$ 13,010	143	11	1,393	121	1,184	22	$ 209
Common User	1,264	12,696	51	4	406	46	406	5	0
Prepo:									
Maritime	1,755	47,326	142	8	3,072	105	2,781	37	291
Afloat	1,475	30,149	138	9	2,563	25	487	113	2,076
Ready Reserve	5,630	94,321	1,614	29	32,394	469	9,417	1,145	22,900 *
Total DoD	11,450	$197,502	2,088		$39,828	766	$14,275	1,322	$25,553
Commercial									
U.S.	2,143	47,431	114	5	3,206	0	0	114	$3,206
Foreign Flag:									
Donated	851	0	112	13	0	109	0	3	0
Chartered	6,292	75,503	655	10	9,652	516	9,140	139	512
Total Commercial	9,286	$122,934	881		$12,858	625	$9,140	256	$3,718
Grand Total	20,736	$320,436	2,969		$52,686	1,391	$23,415	1,578	$29,271

* DoD and DOT are in dispute over a projected $9,010,000 in off-hire costs for the RRF ships.

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APPENDIX E. ANALYSIS OF PORT TIME BY PORT

Port	(A) Number of Port Stops Reviewed	(B) Average Port Time 1/ (Hours)	Average Loading Time (C) Hours	Average Loading Time (D) Percent of Port Time (C/B)	Average Other Port Time (E) Hours (B-C)	Average Other Port Time (F) Percent of Port Time (E/B)
Antwerp, Belgium	5	102.5	40.9	40	61.6	60
Bayonne, NJ	5	71.3	38.1	53	33.3	47
Beaumont, TX	9	94.9	51.0	54	43.9	46
Bremerhaven, Germany	13	76.2	37.4	49	38.8	51
Charleston, SC	6	91.6	38.0	41	53.6	59
Houston, TX	14	107.1	49.5	46	57.6	54
Jacksonville, FL	11	116.6	81.5	70	35.1	30
Long Beach, CA	7	206.3	174.2	84	32.0	16
Morehead City, NC	4	97.2	64.9	67	32.3	33
Newport News, VA	3	86.3	74.1	86	12.2	14
Nordenham, Netherlands	2	312.9	265.5	85	47.4	15
Oakland, CA	6	139.0	86.9	63	52.1	37
Rotterdam, Netherlands	15	91.5	48.4	53	43.1	47
Savannah, GA	4	59.7	35.8	60	23.9	40
Southhampton, United Kingdom	2	97.5	74.8	77	22.7	23
Wilmington, NC	4	111.8	73.6	66	38.2	34
All Ports	110	107.7	65.7	61	42.0 2/	39

1/ Port time is the period from the time the pilot boards the ship entering the port to the time the pilot departs the ship upon exiting the port.

2/ The overall averages represents approximately an additional day and a half of port time.

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APPENDIX F. COMPARISON OF PLANNED LOADING TIME TO ACTUAL AVERAGE LOADING TIME

(A) Ship Type	Number of Port Stops (B) Reviewed	(C) Over/Under Planned Loading Time 1/	(D) Percent	(E) Actual Average Loading Time 2/ (Hours)	(F) Planned Loading Time (Hours)	(G) Planned Loading Time as a Percent of Actual Average Loading Time (F/E)
Breakbulk	48	32	67	79.3	96.0	121
Breakbulk/Container	1	1	100	43.0	120.0	279
Sea Barge	1	1	100	98.0	24.0	24
Fast Sealift Ship	18	7	39	44.5	48.0	108
Lighter Aboard Ship	1	1	100	581.5	252.0	43
Maritime Prepositioning Ship	8	5	63	61.7	48.0	78
Roll on, Roll off Container	2	1	50	54.9	48.0	87
Roll on, Roll off	29	25	86	41.7	24.0	58
Former Seatrain	2	2	100	38.7	72.0	186
All ship types	110	75	68	65.7	65.3	99

1/ A port stop was considered over/under only if actual loading time was 25 percent or more greater than or less than planned loading time.

2/ Per Military Traffic Management Command Transportation Engineering Agency Pamphlet 700-2

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APPENDIX G. ANALYSIS OF PORT TIME AT THE MILITARY OCEAN TERMINAL, SUNNY POINT, NORTH CAROLINA

(A) Ship	(B) Ship Type	(C) Port Time (Hours)	Events Other than Loading		Loading Time	
			(D) Total (Hours)	(E) Percent of Port Time D/C	(F) Total (Hours) C-D	(G) Percent of Port Time F/C
Amer Kesterel	Lighter Aboard Ship	1043.7	419.4	40	624.2	60
Cape Archway	Breakbulk	188.6	8.0	4	180.6	96
Cape Domingo	Roll on, Roll off	133.6	3.0	2	130.6	98
Cape Flattery	Lighter Aboard Ship	564.0	376.9	67	187.1	33
Cape Florida	Lighter Aboard Ship	990.8	698.3	70	292.5	30
Green Island	Lighter Aboard Ship	865.0	522.0	60	343.0	40
Strong Texan	Roll on, Roll off	49.0	4.5	9	44.5	91
Average all ships		547.8	290.3	53	257.5	47

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APPENDIX H. COMPARISON OF PLANNED LOADING TIME TO ACTUAL LOADING TIME AT THE MILITARY OCEAN TERMINAL, SUNNY POINT, NORTH CAROLINA

(A) Ship	(B) Ship Type	(C) Actual Loading Time (Hours)	(D) Planned Loading Time (Hours)	(E) Planned Loading Time as a Percent of Actual Average Loading Time (D/C)
Amer Kesterel	Lighter Aboard Ship	624.3	300	48
Cape Archway	Breakbulk	180.6	48	27
Cape Domingo	Roll on, Roll off	130.6	24	18
Cape Flattery	Lighter Aboard Ship	187.1	328	175
Cape Florida	Lighter Aboard Ship	292.5	308	105
Green Island	Lighter Aboard Ship	343.0	324	94
Strong Texan	Roll on, Roll off	44.5	24	54
Average all ships		257.5	194	

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APPENDIX I. SUMMARY OF CARGO DISCREPANCIES FOUND ON SAMPLE CARGO OUTTURN RECONCILIATION MESSAGES

(A) Ship	(B) Voyage Number	(C) Number of Pieces Manifest	(D) Number of Pieces Off-Loaded	(E) Discrepancies (Net) (C-D)		(F) Pieces Manifested But Not Off-Loaded	(G) Pieces Off-Loaded But Not Manifested
				Short	Over		
Cape Juby	8633	357	340	17		30	13
Cape Clear	8632	268	198	70		73	3
Cape Isabel	8617	448	379	69		109	40
Capella	8025	915	844	71		93	22
Bright Skies	4583	48	53		5	48	53
Altair	8055	1,015	940	75		93	18
Pollux	8597	768	835		67	0	67
Cape Lobos	8608	400	384	16		18	3
Jolly Smeraldo	2200	330	342		12	131	143
Cape May	8621	558	397	161		191	34
Altair	8591	562	821		259	554	813
Total		5,669	5,533	479	343	1,340	1,209

NOTE: CORM's were located on 11 sample voyages. CORM's for other sample voyages were either not produced or not readily available.

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APPENDIX J. SUMMARY OF POTENTIAL BENEFITS RESULTING FROM AUDIT

Recommendation Reference	Description of Benefits	Amount and/or Type of Benefit
A.1.	Economy and Efficiency. Improve the accuracy of readiness reporting and the availability of the RRF to meet surge requirements.	Nonmonetary.
A.2.a.	Economy and Efficiency. Test the availability of the RRF to meet surge requirements and the accuracy of DOT's readiness reports on the RRF.	Nonmonetary.
A.2.b.	Economy and Efficiency. Improve the availability of the RRF to meet surge requirements through expanded use of U.S. shipyards.	Nonmonetary.
A.2.c.	Economy and Efficiency. Improve DOT's and the Navy's ability to use U.S. shipyards to activate the RRF.	Nonmonetary.
B.1.a.	Internal Control. Provide controls that would ensure established performance standards for steaming speeds are established for RRF ships.	Undeterminable. A cost avoidance will be realized by DoD when contracting officers deduct for slow steaming on RRF ships.

APPENDIX J. SUMMARY OF POTENTIAL BENEFITS RESULTING FROM AUDIT
(cont'd.)

Recommendation Reference	Description of Benefits	Amount and/or Type of Benefit
B.1.b.	Economy and Efficiency. Provide MSC with improved control over RRF performance when the RRF is supporting DoD operations.	Undeterminable. A cost avoidance will be realized by DoD when ships are placed off-hire.
B.2.	Internal Control. Provide MSC with improved control over DoD controlled ship operators by establishing performance standards in ship operating contracts.	Undeterminable. A cost avoidance will be realized by DoD when ships are placed off-hire.
B.3.	Economy and Efficiency. Provide MSC with more oversight of sealift and better define the amount of sealift capacity needed by MSC to meet mission requirements.	Nonmonetary.
C.1.	Internal Control. Provide controls that would ensure that per diem payments for ship operations are reduced when ships are placed off-hire.	Nonmonetary.

APPENDIX J. SUMMARY OF POTENTIAL BENEFITS RESULTING FROM AUDIT
(cont'd.)

Recommendation Reference	Description of Benefits	Amount and/or Type of Benefit
C.2.	Economy and Efficiency. Collect overpayments made to ship operators for off-hire time.	Funds Put to Better Use. MSC could recover an estimated $392,000 for the Defense Business Operation Fund (17X4930.ND2A).
D.1.a.	Economy and Efficiency. Provide realistic loading estimates for planning cargo movement during a deployment.	Nonmonetary.
D.1.b.	Economy and Efficiency. Provide DoD planners with port time estimates that reflect all events associated with moving a ship through port during a deployment.	Nonmonetary.
D.2.a. and D.2.b.	Economy and Efficiency. Improve readiness by providing DoD planners with realistic port time estimates for loading and moving ammunition through ports, which reflect the unique characteristics of ammunition loading and port limitations.	Nonmonetary.

APPENDIX J. SUMMARY OF POTENTIAL BENEFITS RESULTING FROM AUDIT
(cont'd.)

Recommendation Reference	Description of Benefits	Amount and/or Type of Benefit
E.1.a. and E.1.b.	Internal Control. Provide a control to MTMC to ensure that cargo shipped from the SPOE was actually delivered to the intended SPOD.	Undeterminable. This control would reduce the risk of losing expensive and sensitive equipment and cargo while in transit.
E.2.	Internal Control. Provide port personnel that are responsible for loading, unloading, and reconciling cargo with computer equipment capable of processing the volume of cargo required during a deployment without interrupting port operations.	Nonmonetary.

APPENDIX K. ACTIVITIES VISITED OR CONTACTED

Office of the Secretary of Defense

Assistant Secretary of Defense (Production and Logistics), Washington, DC

Joint Staff

Director for Logistics, Washington, DC
Director for Force Structure, Resource and Assessment, Washington, DC
Inspector General, Washington, DC

Department of the Army

Headquarters, U.S. Central Command, 22nd Support Command, Dhahran, Saudi Arabia
Headquarters, U.S. Army Europe, Heidelberg, Germany
Headquarters, Military Traffic Management Command, Falls Church, VA
Chief of Staff of the Army
Eastern Area, Military Traffic Management Command, Bayonne, NJ
Western Area, Military Traffic Management Command, Oakland, CA
European Area, Military Traffic Management Command, Rotterdam, Netherlands
Transportation Engineering Agency, Military Traffic Management Command, Newport News, VA
Military Ocean Terminal - Bayonne, Bayonne, NJ
Military Ocean Terminal - Bay Area, Oakland, CA
Military Ocean Terminal, Sunny Point, NC
Military Traffic Management Command - Beaumont (Detachment), Beaumont, TX
Military Traffic Management Command - Houston (1191st Transportation Terminal Unit, New Orleans, LA), Houston, TX
Military Traffic Management Command - Terminal Bremerhaven, Bremerhaven, Germany
Military Traffic Management Command - Transportation Terminal Unit, Rota, Spain
Military Traffic Management Command - Ocean Cargo Clearance Authority, Naples, Italy
Military Traffic Management Command - Southwest Asia, Ad Dammam, Saudi Arabia
Military Traffic Management Command, South Atlantic Outport, Charleston, SC
Military Traffic Management Command - Southern California Outport, Compton, CA
1176th Transportation Terminal Unit, Baltimore, MD

APPENDIX K. ACTIVITIES VISITED OR CONTACTED (cont'd)

Department of the Army (cont'd)

1181st Transportation Terminal Unit, Meridian, MS
1184th Transportation Terminal Unit, Mobile, AL
1185th Transportation Terminal Unit, Terminal Transportation Command, Lancaster, PA
1192nd Transportation Terminal Unit, New Orleans, LA

Department of the Navy

Office of the Deputy Chief of Naval Operations (Logistics), Washington, DC
Headquarters, U.S. Navy - Europe, London, United Kingdom
Naval Sea Systems Command, Washington, DC
Headquarters, Military Sealift Command, Washington, DC
Headquarters, Military Sealift Command - Pacific, Oakland, CA
Headquarters, Military Sealift Command - Atlantic, Bayonne, NJ
Headquarters, Military Sealift Command - Middle Atlantic, Norfolk, VA
Headquarters, Military Sealift Command - Southwest Asia, Ad Dammam, Saudi Arabia
Headquarters, Military Sealift Command - Europe, London, United Kingdom
Headquarters, Military Sealift Command - Mediterranean, Naples, Italy
Military Sealift Command, Beaumont, TX
Military Sealift Command, Rotterdam, Netherlands
Military Sealift Command, Bremerhaven, Germany
Military Sealift Command, Long Beach, CA
Military Sealift Command, Jacksonville, FL
Military Sealift Command, Atlantic Detachment, Charleston, SC
Military Sealift Command, Sunny Point, NC

Marine Corps

Commandant of the Marine Corps, Washington, DC
1st Marine Expeditionary Force, Marine Corps Logistics Base, Camp Pendleton, CA

Other Defense Agencies

Headquarters, U.S. Transportation Command, Scott Air Force Base, IL
Headquarters, Central Command, MacDill Air Force Base, FL
Headquarters, European Command, Stuttgart, Germany

APPENDIX K. ACTIVITIES VISITED OR CONTACTED (cont'd)

Non-DoD Activities

Department of Transportation, Inspector General, Washington, DC
Maritime Administration, Washington, DC
United States Coast Guard, Washington, DC
General Accounting Office, Washington, DC

Non-Government Agencies

Sabine Pilots, Groves, TX
Houston Pilots Association, Houston, TX
Port of Houston Authority, La Porte, TX
New York Maritime Association, New York, NY
Charleston Branch Pilot's Association, Charleston, SC
Savannah Pilot's Association, Savannah, GA
Bay Towing Boat Company, Norfolk, VA
Moran Tug Boat Company, Norfolk, VA
Association of Virginia Decking Pilots, Norfolk, VA
McAllister Tug Boat Company, Norfolk, VA
Virginia State Pilots Association, Norfolk, VA
USNS Capella
Saudi Sea Ports Authority, King Abdul Aziz Port, Ad Dammam, Saudi Arabia
Port of Al Jubayl, Al Jubayl, Saudi Arabia
Center for Naval Analyses, Alexandria, VA
San Francisco Bar Pilots Association, San Francisco, CA
Virginia State Pilots Association, Newport News, VA
St. Johns Bar Pilot Association, Mayport, FL

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APPENDIX L: REPORT DISTRIBUTION

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Director
  Defense Research and Engineering (Naval Warfare and Mobility)
Assistant Secretary of Defense (Production and Logistics)
Assistant Secretary of Defense (Program Analysis and Evaluation)
Assistant Secretary of Defense (Public Affairs)
Comptroller of the Department of Defense

Department of the Army

Secretary of the Army
Assistant Secretary of the Army (Installations and Logistics)
Commander, Military Traffic Management Command
Auditor General, U.S. Army Audit Agency
Inspector General

Department of the Navy

Secretary of the Navy
Assistant Secretary of the Navy (Financial Management)
Comptroller of the Navy
Chief of Naval Operations
Commander, Military Sealift Command
Commander, Navy Sea Systems Command
Auditor General, Naval Audit Service
Commandant of the Marine Corps

Department of the Air Force

Air Force Audit Agency

Defense Agencies

Director, Defense Contract Audit Agency
Defense Intelligence Agency
Defense Logistics Agency
Defense Logistics Studies Information Exchange
National Security Agency/Chief, Central Security Service

Other Defense Activities

Office of the Chairman, Joint Chiefs of Staff
Director, Joint Staff
Commander in Chief, U.S. Transportation Command
Commander in Chief, U.S. European Command
Commander in Chief, U.S. Central Command
Commander, U.S. Army Europe and Seventh Army
Commander in Chief, U.S. Naval Forces Europe

APPENDIX L. REPORT DISTRIBUTION (cont'd.)

Non-DoD Activities

Assistant Inspector General (Audit), Department of Transportation
Administrator, Maritime Administration, Department of Transportation
Office of Management and Budget
U.S. General Accounting Office
  NSIAD/Logistics
  NSIAD Technical Information Center

Chairman and Ranking Minority Member of the following Congressional Committees and Subcommittees:

Senate Subcommittee on Defense, Committee on Appropriations
Senate Subcommittee on Transportation, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Commerce, Science, and Transportation
Senate Committee on Government Affairs
House Committee on Appropriations
House Subcommittee on Commerce, Justice, State, the Judiciary, and Related Agencies, Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Subcommittee on Transportation, Committee on Appropriations
House Committee on Armed Services
House Subcommittee on Readiness, Committee on Armed Services
House Committee on Government Operations
House Subcommittee on Government Activities and Transportation, Committee on Government Operations
House Subcommittee on Legislation and National Security, Committee on Government Operations
House Committee on Merchant Marine and Fisheries
House Committee on Public Works and Transportation

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PART IV - MANAGEMENT COMMENTS

Comments From Assistant Secretary of Defense (Production and Logistics)

Comments From Assistant Secretary of Defense (Program Analysis and Evaluation)

Comments From Assistant Secretary of the Navy (Research, Development, and Acquisition)

Comments From Commander in Chief, U.S. Transportation Command

Audit Response to Management Comments on the Findings

MANAGEMENT COMMENTS: ASSISTANT SECRETARY OF DEFENSE

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-8000

July 2, 1992

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: Draft Report on the Audit of DoD Sealift Operations (Project Number ILC-5001)

As requested, we have reviewed the Draft Report on the Audit of DoD Sealift Operations and submit the following comments on the recommendations addressed to the Assistant Secretary of Defense (Production and Logistics).

Sealift Capability - Recommendation 1: We recommend that the Assistant Secretary of Defense (Production and Logistics), in coordination with appropriate DoD offices, revise the Memorandum of Agreement between the Departments of Defense and Transportation to define the criteria that must be met for reporting the specific readiness status of Ready Reserve Force ships.

P&L Comment: Partially concur. We concur that the Memorandum of Agreement (MOA) between DoD and DOT should be revised. However, criteria for reporting the specific readiness status of the Ready Reserve Force (RRF) ships had previously been defined separately from the MOA because of the level of detail and the dynamic nature of the environment defined by the criteria. The reporting criteria were initially developed in May 1983 and subsequently revised as necessary. The Navy will continue to examine the RRF requirements and develop future revisions as necessary. The established reporting criteria rate ships from C-1 (no mission degrading deficiencies) to C-5 (scheduled major repairs in progress; unable to meet assigned readiness criteria). The Maritime Administration (MARAD) is required to provide readiness information on each ship monthly. Inaccurate reporting existed in MARAD's reports to the Navy because adequate funds for maintenance and test activations were not provided. This resulted in MARAD's readiness estimates being made on the ship's last known performance of equipment rather than on actual reports.

Sealift Operations: Recommendation 1: We recommend that the Assistant Secretary of Defense (Production and Logistics), in coordination with appropriate DoD offices, negotiate with the Department of Transportation to revise the Memorandum of Agreement

between the Department of Defense and the Department of Transportation to:

a. Include contract provisions for Ready Reserve Force ships to establish steaming speeds and to make payment reductions when slow steaming occurs.

b. Designate the Military Sealift Command as the administrative contracting officer when Ready Reserve Force ships are under the Military Sealift Command's operational control to give the Military Sealift Command the authority to make payment deductions for slow-steaming and off-hire time.

P&L Comment: Nonconcur. Although we concur that the MOA between DoD and DOT should be revised, we do not concur that it should include contract provisions for slow-steaming and off-hire penalties or for the Military Sealift Command to be designated as the administrative contracting officer to make payment deductions for the penalties.

Slow steaming, not related to weather, load conditions, or operational directional, is a function of plant upkeep which, in the case of the RRF, is directly related to maintenance dollars. The slow-steaming penalty could only work if DoD provides all the resources necessary for the ship managers to correct identified deficiencies. However, in most cases, fiscal realities preclude this type of maintenance.

The Maritime Administration (MARAD) activates and operates the RRF on behalf of the DoD. In turn, DoD is committed to reimbursing MARAD for all out-of-pocket expenses. The off-hire clause is derived from commercial charters where the owner/operator has complete control over the asset. Clearly, this is not the case with the RRF ship managers. Although we are interested in management tools to improve cost effectiveness, it would be difficult to hold a ship manager accountable and liable for the performance of a ship for which they do not have complete control.

MARAD does have an off-hire clause in their contracts with the ship managers to recoup costs for nonperformance when gross negligence is clearly the factor. Instead of incorporating nonperformance penalties into the MOA, MARAD should develop clear definitions for nonperformance and associated compensation and incorporate those provisions into the ship-manager contracts.

Thank you for the opportunity to comment on the draft report.

Colin McMillan

Colin McMillan

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301-1800

PROGRAM ANALYSIS
AND EVALUATION

July 6, 1992

MEMORANDUM FOR THE DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: Draft Report on the Audit of DoD Sealift Operations
(Project Number ILC-5001)

Thank you for the opportunity to provide comments on your audit of sealift operations. Please extend my appreciation to your Logistics Support Directorate, who greatly assisted my staff in reviewing the audit.

Concerning Finding A ("Sufficient U.S.-owned sealift was not mobilized in a timely manner to unilaterally meet the initial surge requirements . . ."), I think there is a misconception regarding the purpose of the National Security Sealift Policy. The intent of the policy is to ensure sufficient capacity is available to meet sealift requirements in the event of a crisis or war. The policy does not attempt to detail how to respond to specific contingencies. Operations Desert Shield and Storm were, by design, a coalition effort. Sealift provided an excellent opportunity for other countries to participate in these operations. Since the coalition served as the foundation for the operation, a unilateral U.S. response was not necessary. I therefore recommend that this finding be deleted.

The audit is correct in noting that U.S. commercial ships were not readily available for cargo shipment. While they were afforded the first opportunity to respond to sealift Requests for Proposals (RFPs), concerns over losing profitable long-term trade routes and delays due to distance resulted in many RFPs being awarded to foreign companies.

There was sufficient long-term militarily suitable U.S.-owned sealift capacity available to have met Desert Shield/Storm requirements. However, exploiting these resources would have required requisitioning enough shipping to provide 6.8 million square feet of capacity once the ships were outfitted with seasheds and flatracks. Providing just 2 million square feet of converted space would cost an estimated $158 million, which exceeds the $91 million spent on coalition leasing; the cost of requisitioning ships would have been even more.

I hope this information provides useful insights for your research and that you will be able to take it into consideration in your final report.

David S. C. Chu

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MANAGEMENT COMMENTS: DEPARTMENT OF THE NAVY

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, D.C 20350-1000

JUN 2 0 1992

MEMORANDUM FOR THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

Subj: DRAFT REPORT ON THE AUDIT OF SEALIFT OPERATIONS (PROJECT NO. 1LC-5001)

Ref: (a) Office of the Inspector General, Draft Report on Sealift Operations (Project No. 1LC-5001), dated April 20, 1992

Encl: (1) Navy Position on Findings and Recommendations
(2) Navy Review Comments on the Draft Report dated April 20, 1992 (Project No. 1LC-5001)

The Navy has reviewed the subject draft report on Sealift Operations. The Navy position on the findings and recommendations specifically addressed to Navy for response are forwarded by enclosure (1).

Since the Navy has immediate responsibility for Sealift Capability and Operations, the enclosure (2) summary of the results of our review on these sections of the draft report are also forwarded for your close attention.

If I can be of any further assistance to you, please do not hesitate to let me know.

Gerald A. Cann

Copy to:
NAVINSGEN
NAVCOMPT(NCB-53)

Department of the Navy Response
to
DODIG Draft Audit of 20 April 1992 (Project No. 1LC-5001)
on
DOD Sealift Operations

A. SEALIFT CAPABILITY

Finding A - Sufficient U.S.-owned sealift was not mobilized in a timely manner to unilaterally respond to initial surge requirements for Desert Shield. DOD relied on 105 foreign flag ships at a cost of $91 million to deliver 6.8 million square feet of surge cargo.

Recommendation 1. We recommend that the Assistant Secretary of Defense (Production and Logistics), in coordination with appropriate DOD offices, revise the Memorandum of Agreement between the Departments of Defense and Transportation to define the criteria that must be met for reporting the specific readiness status of Ready Reserve Force ships.

Navy Position: The Navy does not concur with recommendation as stated because the criteria for readiness was established by CNO memo Ser 40/34391820 of17 May 83, and MARAD is required to provide readiness information on each ship monthly.

Recommendation 2. We recommend that the Chief of Naval Operations:

a. Expand the mix of Ready Reserve Force ships that are test activated and periodically review the accuracy of the Department of Transportation's readiness reports on the Ready Reserve Force.

Navy Position: Under plans recommended by the recent Mobility Requirements Study, ships in Reduced Operating Status (ROS 4) will be activated annually for sea trials, with all engineering trials in alternate years. Ships to be test activated are identified by Military Sealift Command (MSC) but not revealed to the Maritime Administration (MARAD), the agency that maintains and administers the RRF, until immediately prior to the activation date. Navy staff does review the Department of Transportation's RRF's readiness reports on a monthly basis, as well as the readiness reporting process proper.

b. Include Navy shipyards and commercial shipyards that are building DOD ships in the activation of Ready Reserve Force ships, and include these shipyards in the activation of Ready Reserve Force ships during training exercises.

Navy Position: Concur.

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Enclosure (1)

c. Periodically, activate the Navy's Office of the Coordinator for Ship Repair and Conversion to make sure that activation of the Ready Reserve Force can be integrated with work taking place or scheduled at Navy and major commercial shipyards.

Navy Position: The Office of the Coordinator for Ship Repair and Conversion is activated under the provisions of a Letter of Agreement between the Secretary of the Navy and the Department of Transportation. NAVSEA and ASN(RDA) did consider activating the Office of the Coordinator at the outset of Desert Shield activities. A clear decision was made not to activate those functions at that time, and to defer activation pending further developments in Desert Shield hostilities. Some of the reasons for the decision not to activate are as follows:

1. The Department of Transportation (DOT) already had contracts in place with private shipyards to perform activation of the RRF ships required by MSC.

2. While the coordinator functions would have provided a vehicle for reassignment of work priorities within shipyards, DOT indicated that no funds were available to reimburse contractors for other work which would be displaced were the government to direct the reprioritization of private shipyard work through the Office of the Coordinator.

3. Activation of the Coordinator entails a significant effort and involvement of many government activities which, in view of the items above, offered no apparent value to the very short term RRF activation efforts for Desert Shield. In the short term, it was decided that informal working level actions could be used effectively to expedite shipyard priorities on a case to case basis. In only one instance was informal action required between MSC, NAVSEA, the applicable Supervisor of Shipbuilding, and a private shipyard, to ensure repair of a MSC desired action. This informal coordination was accomplished without incurring the additional cost that would have resulted from a formal Office of the Coordinator reprioritization action.

The Navy appropriately elected to defer activation of the Office of the Coordinator until such time as potential battle damage repairs, requirements for new ship construction, or other situations, would have provided measurable value from such action. Further, it should be noted, that the Navy did, during the most recent Navy war game activity (Proud Eagle 90), activate the Office of the Coordinator in conjunction with MARAD. Significant benefits were derived in the wargame scenario, and NAVSEA will continue to incorporate activation of the Coordinator, as appropriate, during future war games exercises.

B. SEALIFT OPERATIONS

Finding B - Sealift performance of cargo ships was reduced by slow steaming and idle time. DOD lost 3,000 sail days at a cost of $52.6 million due to ships' slow steaming and idle time.

Recommendation 1. We recommend that the Assistant Secretary of Defense (Production and Logistics), in coordination with appropriate Department of Defense offices, negotiate with the Department of Transportation to revise the Memorandum of Agreement (MOA) between the Department of Defense and the Department of Transportation to:

a. Include contract provisions for Ready Reserve Force ships to establish steaming speeds and to make payment deductions when slow steaming occurs.

Navy Position: The Navy does not concur with the draft report recommendation to include contract provisions for steaming speeds. However, we would have no objection if MARAD included enforceable provisions in their contracts which permit the withholding of payment if the ships cannot perform their mission due to the fault of the contractor.

b. Designate the Military Sealift Command as the administrative contracting officer when Ready Reserve Force ships are under the Military Sealift Command's operational control to give the Military Sealift Command the authority to make payment deductions for slow steaming and off-hire time.

Navy Position: MSC is reviewing the impact of this recommendation and will provide a position upon completion of the review.

Recommendation 2. We recommend that the Commander, Military Sealift Command, include provisions in contracts with ship operators of the fast sealift ships and maritime prepositioning ships to establish steaming speeds and to make payment deductions when slow steaming occurs.

Navy Position: The Navy does not concur with the recommendation to include provisions in theircontracts with ship operators of the fast sealift ships and maritime prepositioning shipswhich would establish steaming speeds, and make payment deductions when slow steaming occurs. The Navy does not want ship operators to automatically operate ships at top speed. Ordering a vessel to travel at a speed slightly less than "top speed" results in greatly diminished fuel consumption. Over the course of long (transatlantic) voyage, the fuel conserved at reduced speed can avoid fuel-stop delays. Sustained high-speed transits may also be counterproductive because engine wear, breakdowns, and other

performance problems can result. Moreover, because of factors like port congestion, weather, or lack of cargo requirements, ordering a ship at top speed may not be advisable. The Navy position is that ship speed decisions should be the responsibility of the operational commander.

Recommendation 3. We recommend that the Commander in Chief, U. S. Transportation Command, develop a single system that is capable of identifying the amount of Department of Defense cargo requiring sealift for forces designated by the Joint Chiefs of Staff for deployment and tracking ship movements in either peacetime or wartime.

Navy Position: For response by the Commander in Chief, Transportation Command.

C. FINANCIAL CONTROLS

Finding C - The Military Sealift Command (MSC) did not always reduce payments to contractors when ships were placed off-hire. MSC overpaid ship operators an estimated $392,000.

Recommendation 1. Establish controls that require the Payment Certification and Disbursing Directorate to ensure that off-hire deductions, approved by contracting officers, are taken. Additionally, require the contracting officer to validate that the off-hire deductions are taken before contract files are closed.

Navy Position: Concur. MSC has improved controls to ensure that off-hire deductions, approved by contracting officers are taken. The Payment Certification Division is required to notify the contracting officer when the deduction is taken. These controls have been implemented. Furthermore, a procedure has been implemented whereby the contracting officer validates that all off-hire deductions are taken before contract files are closed. Contracting officers request, and the Payment Certification Division provides, summary data on off-hire deductions on all contracts prior to closing contract files.

Recommendation 2. Recoup the estimated $392,000 in overpayments operators of Government ships controlled by Military Sealift Command during Operation Desert Shield. Additionally, review other payments to operators of ships used during Operation Desert Shield for similar overpayments.

Navy Position: Partially concur. The sum of $392,000 is an extrapolation of potential overpayments based on a sample. MSC can only deduct for actual overpayments. The amount of overpayments specifically identified was $196,000. This amount has been recouped. Review has been initiated to identify other potential overpayments, and additional deductions will be made where appropriate.

D. PORT TIME

Finding D - The Military Traffic Management Command did not develop planning estimates of the total time needed to move ships through ports. As a result, the movement of cargo to the overseas theater was delayed, and the operational commander could not accurately plan and coordinate arrival of unit cargo.

Navy Position: For response by the Commander in Chief, Transportation Command.

E. IN TRANSIT ACCOUNTABILITY

Finding E - DOD lost accountability of surge cargo shipped to Southwest Asia. As a result DOD was not assured that all cargo shipped to Southwest Asia was off-loaded.

Navy Position: For response by the Commander in Chief, Transportation Command.

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Department of the Navy Comments
on
DODIG Draft Audit of 20 April 1992 on Sealift Operations

(Project No. 1LC-5001)

Finding A. - Sealift Capability, of the draft report, at paragraph 4. of the Executive Summary, and page 9., states that "Sufficient U.S.-owned sealift was not mobilized in a timely manner to unilaterally meet the initial surge requirements for Operation Desert Shield." This statement is incorrect. It is recommended that this statement be changed to read "Sufficient U.S.-owned surge sealift was not available to be mobilized." The phrase "in a timely manner" implies that DOD was negligent in the acquisition of these ships. As requirements developed, appropriate and timely sealift was marshalled. All suitable and available U. S. flag commercial vessels were placed under contract. Because there were insufficient U. S. flag surge ships available, foreign flag ships were utilized. Foreign ships were solicited in support of the Gulf War by the President's international coalition effort. Ultimately the 120 day, Phase I, deployment Plan was achieved in 93 days. As highlighted by the Mobility Requirements Study, a dramatic increase in the number of militarily useful U.S. owned vessels is needed to avoid reliance on foreign flag ships in a future contingency of the magnitude of the Gulf War. 5

Finding A of the draft report, at page 9, also incorrectly states, "DOT inaccurately reported the readiness status of the RRF to DOD because DOD and DOT had not developed clear criteria to define the readiness status of RRF ships." There is, in fact, a clear criteria for readiness of the RRF, which is established by the Chief of Naval Operations (CNO) memo Ser 40/34391820 of 17 May 83. The reporting criteria had been established to rate ships from C-1 (no mission degrading deficiencies) to C-5 (scheduled major repairs in progress; unable to meet assigned readiness criteria). The Maritime Administration (MARAD) is required to provide readiness information on each ship monthly. Inaccurate reporting existed in the reports to the Navy which were prepared by MARAD, or MARAD's agents, because adequate funds for maintenance and test activations were not provided. This resulted in MARAD's readiness estimates being made on the ship's last known performance of equipment, rather than on actual tests. 5

Again at Finding A, page 9, the draft report states, "DOD lost the ability to mobilize about 1.9 million square feet of RRF sealift capacity during Desert Shield, and relied on foreign 5

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Enclosure (2)

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flag ships to deliver about 6.8 million square feet of cargo at a cost of about $91 million." It is unclear to the Navy what the 1.9 million square feet figure refers to. However, all suitable RRF sealift capability was utilized as needed. The only RRF ships that were not utilized were those that were incompatible with the cargo to be transported.

Finding A, page 14, of the draft report states "However, the DOD controlled sealift was not sufficient to meet the surge requirements of Desert Shield; thus, MSC quickly requested and used commercial U. S. flag dry cargo ships and DOT's RRF ships to augment DOD controlled sealift." The RRF has always been considered a viable part of the surge force, rather than an augment to DOD controlled sealift. It should also be noted that, pursuant to the MOA discussed in the draft report, the RRF is, in fact, DOD controlled. Congress mandated the Mobility Requirements Study (MRS) to validate the amount of strategic lift (sea and air) to meet future contingencies. The ultimate solution will be dependent upon the availability of adequate funding. 7

Page 14 of the draft report also states, "Contractual agreements were not obtained by MSC to charter the remaining eight U.S. flag owned RORO ships during Desert Shield." There were no suitable U. S. flag ROROs that were not chartered as soon as they became available. Some U. S. flag vessels had been built as ROROS, but because of subsequent rebuilding or modification are no longer militarily useful in a surge requirement. 7

Finding A, page 18, of the draft report states, "The DOD and MSC did not adequately test the readiness of the RRF ships." This section should read: "Navy and DOT were provided with substantially less funds for maintenance and test activation than requested and, as a consequence DOT and MSC were unable to adequately test the readiness of the RRF ships. Funding for test activations has traditionally received low priority in budget allocations." In the budget process, initial budget submissions have always requested funds for activation of at least 20% of the RRF per year. Without this level of funding, adequate testing of the readiness of the RRF could not be performed. 10

Finding A, page 21, erroneously states that "Of the eight Navy shipyards with capital investments of over $13 billion and over 60,000 employees, only one (Philadelphia Navy Shipyard) performed any RRF activation work. Mare Island Naval Shipyard also performed activation work on the MARAD RRF ship SS SHOSHONE (TAOT 151), during the timeframe of 29 November 1990 to 19 January 1991. 11

The statement under Finding A, page 27, concerning the Navy request for proposals for RORO ships, should be updated to read, "The Navy has contracted for, and received Initial Designs, from 15

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the shipbuilding industry for Roll On Roll Off (RORO) ships that are militarily useful and could potentially be used in a commercial role."

Also in page 27, the subject of "Future sealift capacity" does not address Prepositioning and Afloat Prepositioning. Both of these options provide dependable, responsive, and militarily suitable alternatives to RRF. 15

Finding B - Sealift Operations, at page 29, states "Slow steaming and idle time resulted in lost sealift capability and expenditures for unused sealift. Overall, we project for the 253 ships acquired in Desert Shield that about 3,000 (14 percent) of the 20,700 available sail days were lost at a cost of $52.6 million. Of the 3,000 lost sail days, the RRF accounted for 1,600 (53 percent) at a cost of $32.4 million." These two statements are incorrect, and should be deleted. Slow steaming is not an issue, further, the slow steaming figures cited in the draft report are incorrect. The auditors made their voyage calculations based on the top speeds theoretically achievable by given ships. After a superficial analysis of specific actual voyages, the auditors assumed "slow steaming" for any variation from this top speed. This reasoning, which is based upon a number of faulty assumptions, ignores the complex trade-offs inherent in maximizing ship performance. No ship operator automatically operates ships at top speed. Ordering a vessel to travel at a speed slightly less than "top speed" results in greatly diminished fuel consumption. Over the course of long (transatlantic) voyage, the fuel conserved at reduced speed can avoid fuel-stop delays. Sustained high-speed transits may also be counterproductive because engine wear, breakdowns, and other performance problems can result. Moreover, because of factors like port congestion, weather, or lack of cargo requirements, ordering a ship at top speed may not be advisable. These decisions should be reserved for the operational commander. 19

Finding B, at page 30 of the draft report, states, "On government-owned, contractor-operated ships, such as the FSS, MSC contracted for the crews on the RRF ships." This is incorrect. Neither MSC nor DOT contracted directly for ship crews. Contracts were entered into with ship operators, who employed and provided crews as part of their overall responsibility to operate and maintain the ships. 19

The second paragraph on page 30 states, "Idle time occurred when a ship was not steaming or was not involved in cargo operations to meet mission. Idle time occurred when a ship had minor mechanical difficulties (ship repairs); was unable to perform its contracted mission due to, for example, major repairs (off-hire); or due to command decisions was unable to meet its mission (awaiting orders)." 19

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This paragraph is misleading. Ships spent time awaiting anticipated direction in order to provide enhanced readiness to meet the developing requirements. This command decision was supported by the Chairman, Joint Chiefs of Staff (CJCS) and did not impact unfavorably on mission requirements. This strategy was more cost effective than redelivering existing charters, or deactivating RRF ships when it was anticipated they would be needed for the next phase. This strategy resulted the resources needed for Phase II being readily available.

The last statement on page 30, "This system, however, did not provide data at the same level of detail as the peacetime tracking system, making it difficult for MSC to effectively monitor ship performance." This statement is incorrect. Vessels were effectively tracked using position reports and other data maintained by MSC's Command and Control Center, such as JOPES and JVIDS. The spreadsheet discussed in this section of the draft report was used for internal MSC management (i.e. schedule planning, ship availability, assignments, program information), not for tracking. 19

Finding B, page 31 of the draft report, states, "MTMC translated this data into the number of ships needed to move this cargo and arranged to move the cargo through the ports." This statement is also incorrect and should be changed since MSC, not MTMC, translates the data into the number of ships required. 20

Again on page 31, the draft report states, "DOD lost a projected 1,400 days, costing approximately $23.4 million, of 20,700 available days because ship operators traveled at less than contracted or registered speeds." This too is an incorrect statement. "Registered speeds" is not a term used in MSC or RRF contracts. However, certain types of charter contracts do identify "warranted speeds". MSC directed "best speeds" for better performance. This does not translate into slower speeds, but is commensurate with a ship's and a crew's capabilities. Some vessels were older vintage, therefore the speed obtainable relied on engine conditions both in fair weather and in rough seas. It is not prudent in most cases to attempt to run a vessel at a fast speed when the results could have been loss of an engine, requiring transfer of cargo to another ship to complete the mission. Additionally, steaming at full speed, only to reach a port that was not ready to upload or download the cargo due to port congestion, or encounter a situation where cargo was not yet available, would have resulted in additional fuel and/or port expenses. This is considered to be counterproductive. Also, it is not prudent to run ships at higher than necessary speeds through adverse weather conditions. Speeds were also adjusted to meet Suez Canal convoys. The result of these actions was that virtually all cargo arrived safely, undamaged, and on time. 20

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Finding B, at page 32, addresses slow speed as it related to foreign flag ships as follows: " Foreign flag ships incurred a projected 625 days at slow steaming (45 percent of the 1,400 days), costing about $9.1 million." This sentence should be deleted since, as discussed earlier, the auditor's definition of slow steaming is incorrect. Further, the examples cited by the auditor of the JOLLY SMERALDO on pages 32 and 33, is inaccurate and should be deleted. Investigation by MSC of the performance of the JOLLY SMERALDO, based on a formal and effective reporting procedure maintained by MSC to monitor slow passages and other performance deficiencies of its ships, revealed that no slow passage or off-hire recommendations were reported for this ship. Also, the methodology used by the auditor to calculate ship speed was incorrect in that it disregarded ships' logs, which is the primary source of weather conditions and Government diversions or orders. — 20, 21

Another factor relevant to the performance of the JOLLY SMERALDO is that because JOLLY SMERALDO was under charter to MSC when the air war commenced, this ship was purposely scheduled during two critical periods; the first following Phase I, for 12 days to await U. S. Army movement from Northern Europe and the commencement of Phase II as announced by the President. Secondly, in anticipation of further requirements, MSC made a decision to postpone redelivery. The ship was redelivered when it was determined that its capacity was not needed.

On pages 33 and 34 of the draft report addresses a slow steaming penalty, and states that "For the projected 121 days of slow steaming by the FSS costing about $1.2 million, MSC was precluded from penalizing the ship operators." As previously noted, the concept and calculations as asserted in the draft report are erroneous. Existing contract provisions and performance standards in FSS contracts are adequate to enable MSC to make performance deductions if and when appropriate. It is recommended this sentence be deleted. — 21

On page 34 the draft report addresses idle time, and states that "Ships lost a projected 1,600 of the available 20,700 available days, costing about $20.3 million, because of ship repairs, off-hire time, and time awaiting orders." Time awaiting essential cargo and orders was driven by shoreside logistics, i.e., movement of forces and cargo to the ports, and is simply prudent ship operation. Such time should, therefore, not be considered lost. The decisions made resulted in sufficient ships being available to meet specific missions, as requirements emerged. As noted earlier, CJCS supported this decision. Additionally, ship repairs are an unavoidable part of ship operations. The alternative to preventive maintenance and repairs would have been greater lost or idle time later, resulting in late or non-delivery of vital cargo. — 21

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In addressing delays while awaiting orders, the draft report, at page 40 and 41, states, "MSC lost a projected 112 sail days at a cost of $2.6 million by prepositioning ships off of Europe out of the total projected 611 days of awaiting orders delays costing about $12.8 million." This is a misleading and inaccurate statement. Positioning ships in anticipation of the President's announcement for Phase II commencement, and for Army's movement to the loading ports, was not lost time, but rather a cost effective action which improved readiness and ship utilization. Not taken into account in the draft report are such items as activation costs and voyage costs. These vessels were ready to load and sail as soon as cargo was received. With the anticipated movement of the 7th Corps, it was logical to position ships in anticipation of these massive and urgent requirements. Closure was dramatically improved through this action to position close to load areas and by eliminating long ballast voyages; costs were substantially lower than if the ships had been permitted to be redelivered and return to commercial business. This decision was supported by CJCS. 24

With reference to the monitoring of ship movements, the draft report, at page 42., states, "MSC was hampered in monitoring ship movements because the peacetime tracking systems, Voyage Information Planning and Analysis System, was not able to process classified data." As noted under Finding A, the draft report confuses the system used for internal management purposes, with that used for tracking of ship movement. 25

bcc:
MSC N 10 (SALLY DARNER)
NAVSEA 00N3 (JEAN ROYSTONE)
OP 0423 (CDR WEST)

SHIP PROGRAMS
APIA-PP
APIA-CP (M. NORRINGTON)

WRITER: APIA-CP - M. NORRINGTON 602-2794
DOCUMENT NAME: MSCIG
DOCUMENT NUMBER: 2U150324

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MANAGEMENT COMMENTS: U.S. TRANSPORTATION COMMAND

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UNITED STATES TRANSPORTATION COMMAND
SCOTT AIR FORCE BASE, ILLINOIS 62225-7001

REPLY TO ATTN OF: TCDC

23 June 1992

SUBJECT: HQ USTRANSCOM Response to DOD IG Audit of DOD Sealift Operations, Code 1LC-5001

TO: Assistant Inspector General for Auditing, Department of Defense, DOD IG

1. We have reviewed the DOD Draft Report, Audit of DOD Sealift Operations and have attached our response.

2. We have incorporated Military Traffic Management Command (MTMC), and Military Sealift Command (MSC) comments into the HQ USTRANSCOM response.

DANE STARLING
Lieutenant General, U.S. Army
Deputy Commander in Chief

1 Atch
HQ USTRANSCOM Response

cc: COMSC/NO1
CDRMTMC/MTCS
HQ USTRANSCOM TCIG
~~DOD IG~~ (Production & Logistics)
ASD

DOD IG AUDIT OF DOD SEALIFT OPERATIONS
PROJECT NO. 1LC-5001
FINAL DRAFT REPORT, 20 APR 92
HQ USTRANSCOM COMMENTS

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1. Executive Summary, para 4. "Sufficient U.S. owned sealift was not mobilized in a timely manner...." — i

HQ USTRANSCOM COMMENT: This statement is incorrect. Recommend substituting "Sufficient U.S. owned surge sealift was not available to be mobilized". The phrase "in a timely manner" implies that DOD was negligent in the acquisition of these ships. As requirements developed, appropriate and timely sealift was marshalled. All suitable and available U.S. flag commercial vessels were placed under contract. Because there were insufficient U.S. flag surge ships available, foreign flag ships were utilized. Foreign ships were solicited in support of the Gulf War by the President's international coalition effort. Ultimately the 120 day Phase I deployment Plan was achieved in 93 days. As highlighted by the Mobility Requirements Study, a dramatic increase in the number of militarily useful U.S. owned vessels is needed to avoid reliance on foreign flag ships in a future contingency of the magnitude of the Gulf War.

2. Page 9. "Sufficient U.S. owned sealift was not mobilized in a timely manner...." — 5

HQ USTRANSCOM COMMENT: See response to item #1 above.

3. Page 9. "DOT inaccurately reported the readiness status of the RRF to DOD because DOD and DOT had not developed clear criteria to define the readiness status of RRF ships." — 5

HQ USTRANSCOM COMMENT: This statement is incorrect. There is a clear criteria for readiness of the RRF which was established by a CNO memo Ser 40/34391820. The reporting criteria had been established to rate ships from C-1 (no mission degrading deficiencies) to C-5 (scheduled major repairs in progress; unable to meet assigned readiness criteria). MARAD is required to provide readiness information on each ship monthly. Inaccurate reporting existed in MARAD's or MARAD's agents' reports to the Navy because adequate funds for maintenance and test activations were not provided. This resulted in MARAD's readiness estimates being made on the ship's last known performance of equipment, rather than on actual tests.

4. Page 9. "DOD lost the ability to mobilize about 1.9 million square feet of RRF sealift capacity during Desert Shield, and relied on foreign flag ships to deliver about 6.8 million square feet...." — 5

HQ USTRANSCOM COMMENT: It is unclear what the 1.9 million square feet figure refers to. However, all suitable RRF sealift

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capability was utilized as needed. The only RRF ships that were not utilized were those that were incompatible with the cargo to be transported.

5. Page 14. "However, the DOD controlled sealift was not sufficient to meet the surge requirements of Desert Shield; thus, MSC quickly requested and used commercial U.S. flag dry cargo ships and DOT's RRF ships to augment DOD controlled sealift." 7

HQ USTRANSCOM COMMENT: The RRF has always been considered a viable part of the surge force rather than as an augment to DOD controlled sealift. It should also be noted that the RRF is, in fact, DOD controlled as per the MOA discussed in the draft. Congress mandated the Mobility Requirements Study (MRS) to validate the amount of strategic lift (sea and air) to meet future contingencies. The ultimate solution will be dependent on the availability of adequate funding.

6. Page 14. "Contractual agreements were not obtained by MSC to charter the remaining eight U.S. flag owned RORO ships during Desert Shield." 7

HQ USTRANSCOM COMMENT: There were no available suitable U.S. flag ROROs that were not chartered as soon as they became available. Some U.S. flag vessels had been built as ROROS but were subsequently rebuilt/modified so that they no longer are militarily useful in a surge requirement.

7. Page 18. "MSC and DOT did not define how a ship was to be rated." 9

HQ USTRANSCOM COMMENT: This statement is incorrect. There is a clear criteria to define readiness status of RRF ships. See response to item #3 above.

8. Page 19. "The DOT and MSC did not adequately test the readiness of the RRF ships." 10

HQ USTRANSCOM COMMENT: This section should read: "Navy and DOT were provided with substantially less funds for maintenance and test activations than requested. Therefore, DOT and MSC were unable to adequately test the readiness of the RRF ships. Funding for test activations has traditionally received low priority in budget allocations." In the budget process, initial budget submissions have always requested funds for activation of at least 20% of the RRF per year. Without this funding, adequate testing of the readiness of the RRF could not be performed.

9. Page 29. "Overall, we project for the 253 ships...that about 3,000...sail days were lost at a cost of $52.6 million. Of the 3,000 lost sail days...." 19

HQ USTRANSCOM COMMENT: As these statements are incorrect, these two sentences should be deleted. Slow steaming is not an issue.

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"Slow steaming" figures cited in the draft report are incorrect. The auditors made their voyage calculations based on the top speeds theoretically achievable by given ships. After an analysis of specific actual voyages, the auditors assumed "slow steaming" for any variation from this top speed. This reasoning ignores the complex trade-offs inherent in maximizing ship performance. No ship operator automatically operates ships at top speed. Ordering a vessel to travel at a speed slightly less than "top speed" results in greatly diminished fuel consumption. Over the course of long (transatlantic) voyage, the fuel conserved at reduced speed can avoid fuel-stop delays. Sustained high-speed transits may also be counterproductive because engine wear, breakdown and other performance problems can result. Moreover because of factors like port congestion, weather, or lack of cargo requirements, ordering a ship at top speed may not be advisable. These decisions should be reserved for the operational commander.

10. Page 30. "On Government-owned, contractor-operated ships, such as the FSS, MSC contracted for the crews. DOT contracted for the crews on RRF ships." 19

HQ USTRANSCOM COMMENTS: This is incorrect. Neither MSC nor DOT contracted directly for ship crews. Contracts were entered into with ship operators, who employed and provided crews as part of their overall responsibility to operate and maintain the ships.

11. Page 30. "Idle time occurred...due to command decisions [a ship] was unable to meet its mission (awaiting orders)." 19

HQ USTRANSCOM COMMENT: This statement is misleading. Ships spent time awaiting anticipated direction, to provide enhanced readiness to meet the developing requirements. This command decision was supported by CJCS and did not impact unfavorably on mission requirements. This strategy was more cost effective than redelivering existing charters or deactivating RRF ships when they were anticipated to be needed for the next phase. This strategy resulted in having the resources needed for Phase II readily available.

12. Page 30. "This system, however, did not provide data at the same level of detail as the peacetime tracking system, making it difficult for MSC to effectively monitor ship performance." 19

HQ USTRANSCOM COMMENT: This statement is incorrect. Vessels were effectively tracked using position reports and other data maintained by MSC's Command and Control Center such as JOPES and JVIDS. The spreadsheet discussed in this section was used for internal management (i.e., schedule planning, ship availability, assignments, program information), not for tracking.

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13. Page 11. "MTMC translated this data [cargo data in the JOPES] into the number of ships needed...." 20

HQ USTRANSCOM COMMENT: This statement is incorrect and should be changed because MSC, not MTMC, translates the data into the number of ships required.

14. Page 31. "DOD lost a projected 1,400 days, costing approximately $23.4 million, of 20,700 available days because ship operators traveled at less than contracted or registered speeds." 20

HQ USTRANSCOM COMMENT: This is an incorrect statement. "Registered speeds" is not a term used in MSC or RRF contracts. However, certain types of charter contracts do identify "warranted speeds." MSC directed "best speeds" for better performance. This does not translate into slower speeds but is commensurate with a ship's and a crew's capabilities. As mentioned earlier, some vessels were older vintage, therefore the speed obtainable relied on engine conditions both in fair weather and in rough seas. It is not prudent in most cases to attempt to run a vessel at a fast speed when the results could have been loss of an engine, requiring transfer of cargo to another ship to complete the mission. Additionally, steaming at full speed, only to reach a port that was not ready to upload or download the cargo due to port congestion or encounter a situation where cargo was not yet available, would have resulted in additional fuel and/or port expenses and was considered counter-productive. It is not prudent to run ships at higher than necessary speeds through adverse weather conditions. Speeds were also adjusted to meet Suez Canal convoys. Virtually all cargo arrived safely, undamaged and on time.

15. Page 32. "Foreign flag ships incurred a projected 625 days in slow steaming...." 20

HQ USTRANSCOM COMMENT: Recommend that this sentence be deleted. The auditors' definition of slow steaming is incorrect as discussed in item #9 above.

16. Pages 32-33. "For example, during 164 days under MSC contract, the JOLLY SMERALDO...incurred 27 days of slow steaming time...." 21

HQ USTRANSCOM COMMENT: This is an invalid conclusion based on inaccurate information. The references to JOLLY SMERALDO should be deleted. Our investigation of this ship's performance reveals that: a. No slow passage or off-hire recommendations were reported for this ship. MSC maintains a formal and effective reporting procedure to monitor slow passages and other performance deficiencies of its ships; b. The auditors' methodology used to calculate ship speed (which is described at pages 31-32) is incorrect. This methodology disregards ships'

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logs, which is the primary source of weather conditions and Government diversions/orders; and c. Because JOLLY SMERALDO was under charter to MSC when the air war commenced, this ship was purposely scheduled during two critical periods; the first following phase I, for 12 days to await U.S. Army movement from Northern Europe and the commencement of phase II as announced by the President. Secondly, in anticipation of further requirements, MSC made a decision to postpone redelivery. The ship was redelivered when it was determined that its capacity was not needed.

17. Page 34. "For the projected 121 days of slow steaming by the FSS costing about $1.2 million, MSC was precluded from penalizing the ship operators." 21

HQ USTRANSCOM COMMENT: Recommend that this sentence be deleted. Existing contract provisions and performance standards in FSS contracts are adequate to enable MSC to make performance deductions when appropriate. As mentioned in item #9 above, the "slow steaming" asserted in the draft report was calculated erroneously.

18. Page 34. "Ships lost a projected 1,600 of the available 20,700 available days...because of ship repairs, off-hire time, and time awaiting orders." 21

HQ USTRANSCOM COMMENT: Time awaiting essential cargo and orders was driven by shoreside logistics, i.e., movement of forces and cargo to the ports, and should not be considered lost. It is simply prudent ship operation. Decisions made resulted in sufficient ships being available to meet specific missions, as requirements emerged. As noted above, this decision was supported by CJCS. Ship repairs are an unavoidable part of ship operations. The alternative to preventive maintenance and repairs would have been greater lost or idle time later, resulting in late or non-delivery of vital cargo.

19. Pages 40-41. "MSC lost a projected 112 sail days at a cost of $2.6 million by prepositioning ships off of Europe out of the total projected 611 days of awaiting orders delays costing about $12.8 million." 24

HQ USTRANSCOM COMMENT: This is a misleading and inaccurate statement. The time asserted to be lost was not. Positioning ships in anticipation of the President's announcement for Phase II to commence and for Army's movement to the loading ports was cost effective because it improved readiness and ship utilization. Not taken into account are such items as activation costs and voyage costs. These vessels were ready to load and sail as soon as cargo was received. With the anticipated movement of the 7th Corps, it was logical to position ships in anticipation of these massive and urgent requirements. Closure was dramatically improved through this action to position close to load areas and by eliminating long ballast voyages; costs were

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substantially lower that if the ships had been permitted to be redelivered and return to commercial business. This decision was supported by CJCS as noted above.

20. Page 42. "MSC was hampered in monitoring ship movement...." 25

HQ USTRANSCOM COMMENT: See response to item #12 above.

21. Page 43. Recommendation 1a. Assistant Secretary of Defense (P&L), in coordination with appropriate Department of Defense offices, negotiate with Department of Transportation to revise the Memorandum of Agreement between the Department of Defense and the Department of Transportation to: 26

a. Include contract provisions for RRF ships to establish steaming speeds, and to make payment deductions when slow steaming occurs.

b. Designate Military Sealift Command as the administrative contracting officer when RRF ships are under MSC's operational control to give MSC the authority to make payment deductions for slow steaming and off-hire time.

HQ USTRANSCOM COMMENTS: Concur in part. HQ USTRANSCOM concurs with the need for DOD and DOT to discuss and establish a mutually satisfactory MOA. Nonconcur with the recommendation to include contract provisions for steaming speeds because it is not always practical. MARAD should, however, include enforceable provisions in their contracts which permit the withholding of payment if ships cannot perform their mission due to the fault of the contractor. The contracts should set forth a clearly defined performance work statement. The methods of accomplishment can be left to the operator's ingenuity, but the operator's entitlement to payment must be linked to the achievement of the contractually established performance obligations.

22. Page 44. Recommendation 2. Commander, Military Sealift Command should include provisions in contracts with ship operators of the fast sealift ships and maritime prepositioning ships to establish steaming speeds, and to make payment deductions when slow steaming occurs. 26

HQ USTRANSCOM COMMENTS: Nonconcur. Ship operators should not automatically operate ships at top speed. Ordering a vessel to travel at a speed slightly less than "top speed" results in greatly diminished fuel consumption. Over the course of long (transatlantic) voyage, the fuel conserved at reduced speed can avoid fuel-stop delays. Sustained high-speed transits may also be counterproductive because engine wear, breakdowns and other performance problems can result. Moreover because of factors like port congestion, weather, or lack of cargo requirements, ordering a ship at top speed may not be advisable. These decisions should be reserved for the operational commander.

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23. Page 44. Recommendation 3. DOD IG recommended Commander in Chief, U.S. Transportation Command, develop a single system that is capable of identifying the amount of Department of Defense cargo requiring sealift for forces designated by the Joint Chiefs of Staff for deployment and tracking ship movements in either peacetime or wartime. 26

HQ USTRANSCOM COMMENT: Concur. HQ USTRANSCOM is the lead agency in developing a Global Transportation Network (GTN) to correct the problem of inadequate intransit visibility of cargo and personnel. GTN will provide transportation data to the Joint Operation Planning and Execution System (JOPES). GTN Version 2.1, scheduled for fielding in 1QtrFY93, will provide an initial integrated intransit visibility capability. GTN Version 2.2, scheduled for fielding in 3QtrFY93, will provide unclassified, summary-level movement data to JOPES. The Integrated Vessel Information and Planning System (IVIPS) is designed to provide integrated peacetime and mobilization information systems support for MSC's transportation mission. MSC, as the lead agency, is correcting the problem of IVIPS not being able to process classified ship movements. Plans are underway for IVIPS to operate in an unclassified mode during peacetime and migrate to secret during contingencies and wartime. GTN Version 3.0, scheduled for fielding in 1QtrFY94, will support a classified interface between GTN and JOPES and well as both unclassified and classified interfaces between GTN and IVIPS.

24. Page 50. Recommendation 1. DOD IG recommended that Commander, Military Sealift Command should establish controls that require the Payment Certification and Disbursing Directorate to ensure that off-hire deductions, approved by contracting officers, are taken. Additionally, require the contracting officer to validate that the off-hire deductions are taken before contract files are closed. 33

HQ USTRANSCOM COMMENTS: Concur. MSC has improved controls to ensure that off-hire deductions, approved by contracting officers, are taken. The Payment Certification Division is required to notify the contracting officer when the deduction is taken. These controls have been implemented. A procedure has also been implemented whereby the contracting officer validates that all off-hire deductions are taken before contract files are closed. Contracting officers request and the Payment Certification Division provides summary data on off-hire deductions on all contracts prior to closing contract files.

25. Page 50. Recommendation 2. Commander, Military Sealift Command should recoup the estimated $392,000 in overpayments to operators of Government ships controlled by Military Sealift Command during Operation DESERT SHIELD. Additionally, review other payments to operators of ships used during Operation DESERT SHIELD for similar overpayments. 33

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HQ USTRANSCOM COMMENTS: Concur in part. The $392,000 is an extrapolation of potential overpayments based on a sample. MSC can only deduct for actual overpayments. The amount of overpayments specifically identified was $196,000. The $196,000 identified as overpayments to operators of government ships has been recouped. Additionally, reviews of other potential overpayments to operators of ships used during Operation DESERT SHIELD has been initiated and deductions made, as appropriate.

26. Page 57. Recommendation 1a. and 1b. DOD IG recommended Commander, Military Traffic Management Command develop and include in the MTMC Transportation Engineering Agency Pamphlet 700-2 an overall planning estimate of the amount of time needed to move dry cargo ships through ports. This overall estimate of port time should include: 38

a. An estimate, by type of ship, of the time needed to load cargo adjusted to reflect experience gained during Operation DESERT SHIELD.

b. A composite factor reflecting the average time consumed by events in port other than loading.

HQ USTRANSCOM COMMENTS: Concur. The revised MTMCTEA Publication 700-2 has been prepared and is currently being coordinated within DOD. The revised publication will be based on the experience gained during Operations DESERT SHIELD/DESERT STORM and will include factors reflecting the average time consumed by events in port other than ship loading. Expected distribution date for the pamphlet is 30 Sep 92.

27. Page 58. Recommendation 2a. and 2b. DOD IG recommended Commander, Military Traffic Management Command develop and include in the MTMC Transportation Engineering Agency Pamphlet 700-2 a separate planning estimate of the amount of time needed to move ammunition ships through ports. This overall estimate of port time should include: 38

a. An estimate, by type of ship, of the time needed to load cargo adjusted to reflect experience gained during Operation DESERT SHIELD.

b. A composite factor reflecting the average time consumed by events in port other than loading.

HQ USTRANSCOM COMMENT: Concur. Separate planning estimates for ammunition ships will be included in MTMCTEA 700-2 pamphlet. Expected distribution date for the pamphlet is 30 Sep 92.

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28. Page 64. Recommendations 1a. and 1b. DOD IG recommended Commander in Chief, U.S. Transportation Command, should develop an agreement with the Commander in Chief, U.S. Central Command providing MTMC the authority to establish controls that would ensure intransit accountability over DOD cargo during a deployment. This agreement should include controls to ensure that:

a. Cargo manifests from the seaport of embarkation arrive at the seaport of debarkation prompt enough to perform a reconciliation of cargo off-loaded.

b. The seaport of debarkation personnel reconcile cargo off-loaded with the manifests from the seaport of embarkation and send reconciliation messages containing unresolved discrepancies to the applicable seaport of embarkation to identify shortages and to take further follow-up action.

HQ USTRANSCOM COMMENTS: Concur. HQ USTRANSCOM is currently staffing proposed language which addresses MTMC's responsibility for terminal operations within the USCENTCOM AOR. This language once approved, will be incorporated into a draft Command Arrangements Agreement (CAA) and forwarded to USCENTCOM for comment by 1 Jul 92. The anticipated completion date of this CAA is 1 Oct 92. Establishment of this agreement, which acknowledges MTMC's responsibility for terminal operations should eliminate command and control problems experienced during Operations DESERT SHIELD and DESERT STORM. This agreement will ensure that a single organization has the responsibility/authority for port operations and intransit accountability of DOD cargo during deployment. This agreement, however, will not alleviate the communication problems or hardware shortfalls that contributed to cargo accountability problems experienced during DESERT SHIELD/STORM. Inadequate communication support to the 7th Transportation Group at the ports of debarkation was the primary cause of problems with the reception of manifest data. Poor quality telephone lines within the Dammam port prevented successful data transmission directly to the computers processing manifest data. Despite repeated requests to the theater communications command by the 7th Transportation Group, a data grade circuit linking the port to the communications facilities at Dhahran was not established until May 91. We suggest that CINCFOR upgrade the organic communications capability of the 7th Transportation Group so they can establish connectivity with MTMC for manifest transmission early in a deployment. Theater CINCs should review communication plans to ensure adequate support is provided for units operating ports of debarkation within their respective AORs. Without adequate communication links, no command or control structure or system can effectively carry out their assigned mission.

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29. Page 64. Recommendation 2. DOD IG recommended Commander in Chief, U.S. Transportation Command, upgrade the hardware capabilities of the Logistics Application of Automated Marking and Reading Symbology (LOGMARS) computer hardware to accommodate a similar volume of cargo as that moved in Operation DESERT SHIELD at both the seaport of embarkation and the seaport of debarkation.

HQ USTRANSCOM COMMENTS: Concur in part. HQ USTRANSCOM supports the recommendation to have adequate hardware capabilities to support the LOGMARS regardless of the environment, i.e., DESERT SHIELD. Nonconcur with the recommendation for HQ USTRANSCOM to upgrade hardware capabilities of LOGMARS. It is the Services responsibility to train and equip their organizations. The Worldwide Port System (WPS), under development by MTMC and planned for fielding in 1993, will replace existing hardware and software used for cargo documentation and provide transportation data to the Global Transportation Network (GTN) in support of cargo intransit visibility (ITV). The fielding of WPS will eliminate the data volume problems experienced during OPERATIONS DESERT SHIELD/STORM.

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AUDIT RESPONSE TO MANAGEMENT COMMENTS ON THE FINDINGS

This section contains extracts from the Assistant Secretary of Defense (Program Analysis and Evaluation), Navy and TRANSCOM comments on the findings as presented in a draft of this report and our responses to those comments. Management comments on the recommendations and potential monetary benefits are addressed in Part II of this report.

Finding A. Sealift Capability

The Navy provided comments on behalf of the Chief of Naval Operations. TRANSCOM also provided unsolicitated comments to the draft report similar to the Navy's. We have responded to the Office of the Secretary of Defense and Navy comments.

Assistant Secretary of Defense Comments

The Assistant Secretary of Defense (Program Analysis and Evaluation) provided unsolicited comments to the finding. He recommended that the finding be deleted due to our misconception of the National Security Sealift Policy. He stated that the policy is intended to ensure that sufficient capacity is available to meet sealift requirements in the event of a crisis or war. (The policy does not detail how to respond to specific contingencies.)

Additionally, Desert Shield and Desert Storm were a coalition effort and a unilateral U.S. response was not necessary. There was sufficient long-term, suitable U.S.-owned sealift capacity available to meet Desert Shield and Desert Storm requirements if U.S.-owned ships had been outfitted with seasheds and flatracks, which are used to store military vehicles on container ships. However, the cost of outfitting U.S. commercial ships would be significantly more than the cost of using foreign flag ships. He added that the audit was correct in noting that U.S. commercial ships were not readily available for surge cargo shipments.

Navy Comments

The Navy believed our statement, "Sufficient U.S.-owned sealift was not mobilized in a timely manner to unilaterally meet surge requirements . . ." was incorrect. It recommended that this statement be changed to read "Sufficient U.S.-owned surge sealift was not available to be mobilized." It stated that our use of the phrase "in a timely manner" implies DoD's negligence in acquiring sealift. It stated that foreign flag ships were used because there were insufficient U.S. flag surge ships available. All suitable and available U.S. flag commercial vessels were

placed under contract. As highlighted by the Mobility Requirements Study, a dramatic increase in the number of militarily useful U.S.-owned vessels is needed to avoid reliance on foreign flag ships in a future contingency of the magnitude of the Gulf War.

Audit Response

We maintain that the National Security Sealift Policy is intended to ensure that sufficient U.S.-owned sealift capacity is available to unilaterally meet threats to U.S. interests, such as those encountered during Desert Shield and Desert Storm. DoD used foreign flag ships to meet surge requirements of Desert Shield because sufficient U.S.-owned sealift could not be readily mobilized to meet the immediate need. Although a few foreign flag ships were donated for the United States to use, most foreign flag ships had to be chartered in the open market at market prices. If the foreign flag ships had not been available, the United States could not have responded as effectively as it did to the initial surge requirements of Desert Shield.

Having sufficient U.S.-owned sealift is not enough. The ability to quickly mobilize a significant portion of U.S. sealift capacity is critical if the United States has to unilaterally respond to threats to U.S. interests. Having to rely on sealift capacity outside the control of the United States could limit its options. The finding shows that improvements can be made in the makeup and mobilization of U.S.-owned sealift capability to reduce reliance on foreign flag ships to respond to future threats to U.S. interests of the magnitude of Desert Shield and Desert Storm.

We agree with the Navy position that DoD could not respond unilaterally to meet the surge requirements of Desert Shield because sufficient U.S.-owned sealift was not available. We have clarified the finding to show this. We also agree with the Assistant Secretary that the U.S. commercial sealift, which could have responded through the use of seasheds and flatracks, was not readily available for surge cargo shipments. Therefore, foreign flag ships were used because they could respond immediately to the mobilization need.

Navy Comments

The Navy disagreed with the draft report statement, "DOT inaccurately reported the readiness status of the RRF to DoD because DoD and DOT had not developed clear criteria to define the readiness status of RRF ships." The Navy stated that clear criteria is already established in a Chief of Naval Operations memorandum, dated May 17, 1983.

Audit Response

We do not agree that the Chief of Naval Operations memorandum provides adequate criteria that must be met to justify the specific readiness status reported by DOT for RRF ships. We addressed this issue in more detail in the audit response to Recommendation A.1. (page 17).

Navy Comments

The Navy commented on the finding statement, "DoD lost the ability to mobilize about 1.9 million square feet of RRF sealift capacity during Desert Shield . . ." The Navy stated that it was unclear what the 1.9 million square feet referred to. It added that all suitable RRF ships were used as needed and the only RRF ships not used were those that were incompatible with the cargo to be transported.

Audit Response

The 1.9 million square feet of ship capacity represents the U.S.-owned sealift capacity lost because of late activation of RRF during Desert Shield, which increased the need to use foreign flag ships to meet initial surge dry cargo requirements. A further explanation is included in the discussion of Finding A (page 12).

Navy Comments

The Navy commented on the finding statement, "However, the DoD controlled sealift was not sufficient to meet the surge requirements of Desert Shield; thus, MSC quickly requested and used commercial U.S. flag dry cargo ships and DOT's RRF ships to augment DoD controlled sealift." It stated that the RRF is considered a viable part of the surge force, rather than an augment to DoD controlled sealift. It added that the RRF is DoD controlled as stipulated in the Memorandum of Agreement.

Audit Response

The report statements are not incorrect or misleading. The RRF is not under DoD's operational control until it is activated.

Navy Comments

The Navy commented on the draft report statement, "Contractual agreements were not obtained by MSC to charter the remaining

eight U.S. flag owned RORO ships during Desert Shield." It stated that there were no suitable U.S. flag ROROs that were not chartered when they became available.

Audit Response

We agree with the Navy comments and have revised the finding to state that eight U.S. flag ROROs were not chartered because these ROROs were identified by the Navy and TRANSCOM as not being militarily useful for surge cargoes.

Navy Comments

The Navy commented on the draft report statement, "The DOT and MSC did not adequately test the readiness of the RRF ships." They recommended the alternative statement that the RRF could not be adequately tested because the DOT and the Navy were provided with substantially less funds than requested.

Audit Response

We did not revise our statement. The adequacy of funding issue was addressed in the draft and final report. We noted that a DOT Inspector General report stated that the maintenance and operations account for the RRF had been reduced by approximately $60 million in FY 1990 (page 9).

Navy Comment

The Navy commented on the draft report statement, "Of the eight Navy shipyards...only one (Philadelphia Navy Shipyard) performed any RRF activation work." It stated that it was incorrect because Mare Island Naval Shipyard performed activation work on the DOT RRF ship, Shoshone.

Audit Response

The final report was changed to specifically identify RRF activation work performed on dry-cargo ships to meet surge cargo requirements. The Shoshone is a tanker and was assigned to support the Navy fleet.

Finding B. Sealift Operations

TRANSCOM provided comments on behalf of MSC. The Navy also provided unsolicited comments to the draft report, similar to TRANSCOM's comments. We have responded to TRANSCOM's comments.

TRANSCOM Comment

The slow steaming figures cited in the draft report are incorrect and should be deleted. Slow steaming is not an issue. The auditors made their voyage calculations based upon top speeds. Ship operators should not automatically operate at top speed because of potential performance problems. Speed decisions should be the responsibility of the operational commander.

Audit Response

The slow steaming figures stated in the report are correct. Slow steaming increased the time required to deliver urgently needed military cargoes and increased costs. We did not use top speeds during our voyage calculations. We used registered speed for government ships and contracted speed for commercial ships. We allowed 10 percent additional sailing time for unforeseen difficulties, 1 full day for each canal transit, and time for other documented delays, such as bad weather, in our calculations of slow steaming for our sample ships. Even with these allowances, we projected that DoD lost 1,400 sail days costing about $23.4 million because of slow steaming of ships during Desert Shield.

TRANSCOM Comment

The draft report statement, "On Government-owned, contractor-operated ships...MSC contracted for the crews. DOT contracted for the crews on RRF ships." is incorrect. Neither MSC nor DOT contracted directly for the ship crews. Contracts were entered into with ship operators, who employed and provided crews as part of their overall responsibility to operate and maintain the ships.

Audit Response

This final report has been revised to show that MSC and DOT generally contracted for ship operators, who contracted for ship crews.

TRANSCOM Comment

TRANSCOM disagreed with the draft report statement, "Idle time occurred...due to command decisions [a ship] was unable to meet its mission (awaiting orders)." The command decision to have ships awaiting anticipated directions enhanced readiness, was cost-effective, and was not idle time.

Audit Response

We showed in the draft and final report that some idle time was caused by the command decision to preposition ships in anticipation of moving U.S. Armed Forces out of Europe. This idle time could have been unavoidable because European units were not poised to deploy to another theater. The draft and final report identified the duration and costs of idle time related to command decisions.

TRANSCOM Comment

TRANSCOM disagreed with the statement, "This system, however, did not provide data at the same level of detail as the peacetime tracking system, making it difficult for MSC to effectively monitor ship performance." Ships were effectively tracked using position reports and other data maintained by MSC's Command and Control Center. The spreadsheets discussed in the draft report were used for internal management (that is, schedule planning, etc.), not for tracking.

Audit Response

MSC's Voyage Information Planning and Analysis System, its automated tracking system, was abandoned during Desert Shield because it could not handle classified information. As a result, MSC primarily relied on manually obtained ship position reports to track ship movements. These position reports were sporadically provided by ship operators during Desert Shield. TRANSCOM is developing the GTN to improve tracking of ships movements, for future contingencies.

TRANSCOM Comment

TRANSCOM disagreed with the draft report that MTMC translated cargo data into the number of ships needed and arranged to move the cargo through the ports. It recommended that the statement be changed because MSC, not MTMC, translates the data into the number of ships required.

Audit Response

The final report has been revised to reflect that during Desert Shield, MTMC and MSC coordinated to translate requirements data into the number of ships required to move cargo through the ports.

TRANSCOM Comment

The various statements in Finding B concerning lost sail days from slow steaming are incorrect. MSC directed best speed for better performance commensurate with a ship's and crew's capabilities. We recommend that the statements concerning the slow steaming of the foreign flag ships be deleted.

Audit Response

The statements concerning lost sail days due to slow steaming are correct. We addressed this issue in our response to Recommendations B.1. and B.2. (pages 27 through 29).

TRANSCOM Comment

TRANSCOM disagreed with the draft report finding statement, "For example, during 162 days under MSC contract, the Jolly Smeraldo...incurred 27 days of slow steaming time...." The conclusions about the Jolly Smeraldo's slow steaming time are invalid conclusions based on inaccurate information and should be deleted. TRANSCOM's investigation of this ship's performance reveals that no slow steaming or off-hire recommendation were reported. MSC postponed redelivery of the ship until it was determined that its capacity was not needed.

Audit Response

Our conclusions are based on data obtained during the audit, which was provided by MSC prior to issuing the draft report. We agree that MSC did not report any slow steaming or off-hire recommendations for the Jolly Smeraldo. However, we found that this ship incurred 27 days of slow steaming due to operating at a reduced speed.

TRANSCOM Comment

TRANSCOM recommended deletion of the draft report statement, "For the projected 121 days of slow steaming by the FSS..., MSC was precluded from penalizing the ship operators." It stated that the existing contract provisions and performance standards in the FSS contracts are adequate to enable MSC to make performance deductions when appropriate.

Audit Response

We disagree with TRANSCOM; contract provisions are not adequate. Our response to Recommendation B.2. addresses this issue (page 29).

TRANSCOM Comment

TRANSCOM commented on the draft report statement, "Ships lost a projected 1,600 of the available 20,700 available days...because of ship repairs, off-hire time, and time awaiting orders." It stated that time awaiting essential cargo and orders were driven by shoreside logistics, and should not be considered lost. It is simply prudent ship operation. Ship repairs are an unavoidable part of ship operations.

Audit Response

The finding shows that during Desert Shield, ships experienced significant amounts of idle time. DoD needs stronger contractual provisions to take payment deductions from ship operators when unnecessary idle time occurs.

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